



PALCOHOL
Powdered Party in a Pouch
May Pack a Lethal Punch
SEE PAGE 12

8
Tourniquets
Are Back, Jack!

10
Case Studies:
Palliative Care in Action

WILEY

American College of
Emergency Physicians®
ADVANCING EMERGENCY CARE

ACEP Now

The Official Voice of Emergency Medicine



AUGUST 2015

Volume 34 Number 8

FACEBOOK/ACEPFAN

TWITTER/ACEPNOW

ACEPNOW.COM

PLUS



SOUND ADVICE
**ULTRASOUND-
GUIDED KNEE
ARTHROCENTESIS**
SEE PAGE 16

CME Now
A new continuing medical
education feature of ACEP Now

LOG ON TO
[http://www.acep.org/
ACEPeCME/](http://www.acep.org/ACEPeCME/)
TO COMPLETE THE
ACTIVITY AND EARN
FREE AMA PRA
CATEGORY 1 CREDIT.

AIRWAY
**RESUSCITATION
SEQUENCE
INTUBATION**
SEE PAGE 18



FIND IT ONLINE
For more clinical stories and
practice trends, plus commentary
and opinion pieces, go to:
www.acepnow.com

2015 ACEP ELECTIONS PREVIEW

MEET THE PRESIDENT-ELECT CANDIDATES

Each October at ACEP's annual Council meeting, the ACEP Council elects new leaders for the College. The Council, which represents all 53 chapters, 33 sections of membership, the Association of Academic Chairs in Emergency Medicine, the Council of Emergency Medicine Residency Directors, the Emergency Medicine Residents' Association, and the Society for Academic Emergency Medicine, will elect the College's President-Elect, four members to the ACEP Board of Directors, the Council Speaker, and the Council Vice Speaker. This month, we'll meet the President-Elect candidates. In September, we'll meet the Board of Directors candidates, and in October, we'll meet the candidates for Council positions.

CONTINUED on page 4



Pot (Bad) Luck

*A mass casualty
incident of the medical
variety*

by JAMES AUGUSTINE, MD,
FACEP, AND JOHN SCOTT,
DO, FACEP

On a busy Monday evening in April at Fairfield Medical Center in Lancaster, Ohio, a 50ish-year-old male presented with a chief complaint of dizziness, "difficulty getting his words out," and a tongue that was not working properly. His family noticed a change in his voice. The evaluation by the emergency physician found no respiratory distress and a nonfocal neurological exam. The patient underwent a neurological workup focused on evaluating him for stroke, but brain imaging and other diagnostic testing uncovered no remarkable results. He was placed in the hospital for a possible transient ischemic attack.

Overnight, his ability to swallow and phonate deteriorated significantly, and he was moved to the intensive care unit (ICU). The consultant found new bilateral ptosis, sixth nerve palsy, and a diminished gag reflex. As neurologist Elizabeth Walz, MD, was completing her evaluation and considering this unusual set of deficits, two more patients arrived in the ED with similar deficits. Dr. Walz was consulted for those patients and worked with the emergency physician to make a connection, and the clinical diagnosis of botulism set the health system wheels in motion. The local and state public health departments were notified.

CONTINUED on page 7

CLINICAL POLICY

ACEP Board Approves tPA Clinical Policy

SEE PAGE 6



JOHN WILEY & SONS, INC.
Journal Customer Services
111 River Street
Hoboken, NJ 07030-5790

WILEY

PERIODICAL

If you have changed your address or wish to contact us, please
visit our website www.wileycustomerhelp.com

Who's got your back?



We do. EMP will always be majority-owned and led by EM physicians just like you. We have each other's backs with first-rate benefits, including the best med mal coverage available. You'll be educated on risk management and have the support you need to make the best decisions. Still, it can happen. We know, we've been there. And we'll be there for you if you need us. At EMP, we're passionate about caring for patients, and each other. Learn more at emp.com.



Learn more about your future. Visit emp.com
or call Ann Benson at 800-828-0898. abenson@emp.com



Founder US Acute Care Solutions.
Opportunities from New York to Hawaii.

ACEP Now

The Official Voice of Emergency Medicine

EDITORIAL STAFF

MEDICAL EDITOR-IN-CHIEF

Kevin Klauer, DO, EJD, FACEP
kklauer@acep.org

EDITOR

Dawn Antoline-Wang
dantolin@wiley.com

ART DIRECTOR

Paul Juestrich
pjuestri@wiley.com

MANAGER, DIGITAL MEDIA AND STRATEGY

Jason Carris
jcarris@wiley.com

ACEP STAFF

EXECUTIVE DIRECTOR

Dean Wilkerson, JD, MBA, CAE
dwilkerson@acep.org

DIRECTOR, MEMBER COMMUNICATIONS AND MARKETING

Nancy Calaway
ncalaway@acep.org

ASSOCIATE EXECUTIVE DIRECTOR, MEMBERSHIP AND EDUCATION DIVISION

Robert Heard, MBA, CAE
rheard@acep.org

COMMUNICATIONS MANAGER

Darrin Scheid
dscheid@acep.org

PUBLISHING STAFF

EXECUTIVE EDITOR/PUBLISHER

Lisa Dionne
ldionne@wiley.com

ASSOCIATE DIRECTOR, ADVERTISING SALES

Steve Jezzard
sjezzard@wiley.com

ADVERTISING STAFF

DISPLAY ADVERTISING

Michael Lamattina
mlamattina@wiley.com
(781) 388-8548

CLASSIFIED ADVERTISING

Kevin Dunn Cynthia Kucera
kdunn@cunnasso.com ckucera@cunnasso.com
Cunningham and Associates (201) 767-4170

EDITORIAL ADVISORY BOARD

James G. Adams, MD, FACEP
James J. Augustine, MD, FACEP
Richard M. Cantor, MD, FACEP
L. Anthony Cirillo, MD, FACEP
Marco Coppola, DO, FACEP
Jordan Celeste, MD
Jonathan M. Glauser, MD, MBA, FACEP
Michael A. Granovsky, MD, FACEP
Sarah Hoper, MD, JD
Linda L. Lawrence, MD, FACEP
Nicholas G. Lezama, MD, MPH, FACEP
Frank LoVecchio, DO, FACEP
Catherine A. Marco, MD, FACEP
Ricardo Martinez, MD, FACEP

Howard K. Mell, MD, MPH, FACEP
Debra G. Perina, MD, FACEP
Mark S. Rosenberg, DO, MBA, FACEP
Sandra M. Schneider, MD, FACEP
Jeremiah Schuur, MD, MHS, FACEP
David M. Siegel, MD, JD, FACEP
Michael D. Smith, MD, MBA, FACEP
Robert C. Solomon, MD, FACEP
Annalise Sorrentino, MD, FACEP
Jennifer L'Hommedieu Stankus, MD, JD
Peter Viccellio, MD, FACEP
Rade B. Vukmir, MD, JD, FACEP
Scott D. Weingart, MD, FACEP

INFORMATION FOR SUBSCRIBERS

Subscriptions are free for members of ACEP and SEMP. Free access is also available online at www.acepnow.com. Paid subscriptions are available to all others for \$233/year individual. To initiate a paid subscription, email cs-journals@wiley.com or call (800) 835 6770. ACEP Now (ISSN: 2333-259X print; 2333-2603 digital) is published monthly on behalf of the American College of Emergency Physicians by Wiley Subscription Services, Inc., a Wiley Company, 111 River Street, Hoboken, NJ 07030-5774. Periodical postage paid at Hoboken, NJ, and additional offices. Postmaster: Send address changes to ACEP Now, American College of Emergency Physicians, P.O. Box 619911, Dallas, Texas 75261-9911. Readers can email address changes and correspondence to acepnow@acep.org. Printed in the United States by Cadmus(Cenveo), Lancaster, PA. Copyright © 2015 American College of Emergency Physicians. All rights reserved. No part of this publication may be reproduced, stored, or transmitted in any form or by any means and without the prior permission in writing from the copyright holder. ACEP Now, an official publication of the American College of Emergency Physicians, provides indispensable content that can be used in daily practice. Written primarily by the physician for the physician, ACEP Now is the most effective means to communicate our messages, including practice-changing tips, regulatory updates, and the most up-to-date information on healthcare reform. Each issue also provides material exclusive to the members of the American College of Emergency Physicians. The ideas and opinions expressed in ACEP Now do not necessarily reflect those of the American College of Emergency Physicians or the Publisher. The American College of Emergency Physicians and Wiley will not assume responsibility for damages, loss, or claims of and kind arising from or related to the information contained in this publication, including any claims related to the products, drugs, or services mentioned herein. The views and opinions expressed do not necessarily reflect those of the Publisher, the American College of the Emergency Physicians, or the Editors, neither does the publication of advertisements constitute any endorsement by the Publisher, the American College of the Emergency Physicians, or the Editors of the products advertised.



WILEY



Inside

- 8 | TOURNIQUETS ARE BACK!
- 12 | DANGER: PALCOHOL
- 13 | MISSION: EFFICIENCY
- 14 | THE END OF THE RAINBOW
- 15 | THE FEED
- 16 | SOUND ADVICE
- 18 | AIRWAY



NEWS FROM THE COLLEGE

ACEP Past President Dr. John McCabe Recognized by ABMS

At its June meeting in Chicago, the American Board of Medical Specialties (ABMS) recognized emergency physician John McCabe, MD, FACEP, with its 2015 Distinguished Service Award. Created in 1986, this award recognizes individuals for their extraordinary contributions to the medical specialty certification process.



Dr. McCabe

A former ABMS Board of Directors member, Dr. McCabe is the chief executive officer of University Hospital and senior vice president for hospital affairs and professor in the department of emergency medicine at Upstate Medical University in Syracuse, New York, where he was instrumental in the development of the university's residency program in emergency medicine.

A renowned emergency physician, Dr. McCabe oversaw a recent expansion of University Hospital's emergency department and enlarged the university's hyperbaric medicine program, one of the only 24-hour hyperbaric programs in the state. He assisted in the creation of a mass casualty unit and upgraded infirmary at the New York State Fairgrounds and developed an emergency medicine simulation center for training medical residents and local emergency medical services professionals. He also spearheaded the university's creation of a Katrina Response Unit to answer calls for medical assistance following the hurricane in 2005.

Nationally, Dr. McCabe has helped lead the discussion on health issues as President of ACEP (1993–1994) and the American Board of Emergency Medicine.

Internationally, he has developed medical conferences at universities in China and India and has hosted delegations of international physicians at Upstate Medical University. Dr. McCabe's research interests have covered numerous aspects of emergency medical care, including the treatment of hemorrhagic shock, cardiac resuscitation, and the care of patients in the pre-hospital environment.

Show Off Your Creativity and Win an ACEP Award

The Section of Medical Humanities is accepting submissions for two awards, one for writing and one for visual arts.

The Ninth Annual Writing Award is for creative works published in print or online between November 2014 and August 2015.



Andrew Sweeny, MD, an emergency physician in Detroit, took home last year's Medical Humanities Section Visual Arts Award for "The Masai Brothers."

UPDATES AND ALERTS FROM ACEP

Blog entries will only be eligible if reconfigured and submitted as an independently publishable piece of creative writing. Self-nominations and nominations of someone else's writing are both welcome. Nominations are limited to two pieces per person.

The section is also soliciting submissions for its Third Annual Visual Arts Award. This is an opportunity for artists to show off their paintings, photography, sculpture, textiles, pottery, and other works. Submit a digital image or file of the visual art for consideration. Nominations are limited to two pieces per person.

Submissions for both awards are accepted from any member of ACEP. Submissions will be voted on by the members of the Section of Medical Humanities. Email nominations to Tracy Napper (tnapper@acep.org) before Sept. 1, 2015. Submissions will be blinded before being sent to the judging panel.

The winning pieces will be announced at ACEP15 in Boston this October.

NEWS CONTINUES on page 5

THE BREAK ROOM

Quacks and Allopaths

Since when did an essentially incoherent term replace "medical doctor"? I'm talking about "allopathic," which literally means "different suffering" and was invented by Samuel Hahnemann, the creator of homeopathy, to be deliberately insulting. Now the term is being used by ACEP leaders to differentiate between MDs and DOs. It doesn't. It differentiates both from homeo-

paths. If you need to discuss physicians separately, the correct terms are "medical doctor" and "osteopathic physician." If you need to combine the professions, the best descriptive term is "scientific medicine"—which is, after all, how we differ from the quacks. Check Wikipedia—even they have this one right! ☺

—Mark Hauswald, MD, FACEP
Telluride, Colorado

2015 ACEP ELECTIONS PREVIEW

MEET THE PRESIDENT-ELECT CANDIDATES



CONTINUED FROM PAGE 1



PRESIDENT-ELECT

The following Board members are candidates for the office of President-Elect. They responded to the following question:

What are the top two issues facing ACEP members today, and how should they be addressed?

Paul Kivela, MD, MBA, FACEP (California)

Current Professional Positions: attending physician and co-managing partner, Napa Valley Emergency Medical Group; medical director, Medic Ambulance; executive VP, chief medical officer, Newsura Insurance Services (insurance brokerage)

Internships and Residency: emergency medicine residency, LA County–UCLA Harbor
Medical Degree: MD, University of Illinois (1990)

Candidate Question Response

There are many important issues facing emergency medicine. I believe the top two issues facing ACEP members today are the constant challenge of adapting to the changing practice environment and the struggle to protect fair payment for our services.

Changes in the health care environment have forced emergency physicians to be more than just great physicians. We have to deal with gaps in resources and also be great managers of personnel, information technology, resource utilization, and coordination of care. Every day our job becomes more difficult. Our scope of practice is continuing to expand. We have to cover gaps in patient care as specialists become increasingly unavailable. We are tasked to maintain satisfaction and department efficiency and at the same time manage more patients even when inpatient beds are functionally or structurally unavailable.

ACEP must advocate to decrease the administrative burdens that do not add value to patient care. We have to work with IT vendors and government regulators so we spend less time in front of a computer and more time connecting with patients. We have to make sure “every click counts” and the efficiency of computerized physician order entry and electronic medical record systems improve. We have to establish standards and distribute the best practices to our members.

We need to educate emergency physicians how to more efficiently manage and supervise not only a constantly changing group of nurses but also nurse practitioners, physician assistants, scribes, and other members of the emergency medicine team.

We need to expand our advocacy for procedural sedation, observation medicine, care coordination, and other skills that meet our patients’ demands.

We have to make sure that we offset quality and cost-containment measures with medical malpractice solutions.

We need to be given control of the resources we need to become the coordinators of patient care and allocators of acute health care resources. We are the most capable physicians to manage and care for patients with complex medical conditions and acute psychiatric problems. We have to make sure these patients are not just left to board in the emergency department.

Whether you are a partner in a democratic group or employed by a large medical group, hospital, or academic center, you deserve to be paid fairly. It is disheartening to hear of the burdensome amount of debt with which many of our recent graduates are leaving residency. Recruiting the best and brightest to our specialty requires us to be diligent in our methodology and to ensure fair payment for our services.

ACEP needs to vigorously advocate to ensure insurance companies pay fairly. We have to engage policymakers, the media, the public, and other decision makers on the value of the care we provide. We must ensure that

there is a standard for what constitutes fair payment. We have to work with patient advocacy groups to make sure the high-deductible plans have affordable patient responsibilities and do not shift more health care dollars to insurance companies.

As states pass laws that “rate set” emergency physician payments, we need to take an aggressive legal and possibly even lead a Constitutional challenge to make sure that insurance companies, Medicare, and Medicaid pay their fair share. As Medicaid and Medicare numbers expand and the number of insured commercial patients decreases, we need to make sure that all pay fairly. This responsibility cannot be shifted to a decreasing number of commercially insured patients.

We need to protect graduate medical education funding. We need to assist with the American Board of Emergency Medicine/American Osteopathic Board of Emergency Medicine merger so that residency spots are not lost and advocate for increased funding to train the numbers of emergency physicians needed.

We need to be at the forefront of developing alternative payment modalities that demonstrate our value and create gain-sharing agreements so that emergency physicians are compensated for their conservation of resources and care coordination. We need to create win-win-win situations for payers, physicians, and, most important, patients.

We need to educate and engage patients, economists, regulators, the media, and others to appreciate the care we provide so that they advocate and change the perception that emergency medicine is valuable and not expensive and unnecessary.

Robert E. O'Connor, MD, MPH, FACEP (Virginia)

Current Professional Positions: professor and chair, physician-in-chief, department of emergency medicine, University of Virginia Health System, Charlottesville; emergency physician, UVA Culpeper Hospital, Culpeper, Virginia

Internships and Residency: emergency medicine residency, Medical Center of Delaware

Medical Degree: MD, Medical College of Pennsylvania (1982)

Candidate Question Response

Mission Statement: The American College of Emergency Physicians promotes the highest quality of emergency care and is the leading advocate for emergency physicians, their patients, and the public.

I find the ACEP mission statement to be both inspirational and aspirational. I use the statement to guide my professional activities, both personally and on behalf of ACEP, and to identify and execute priorities that advance the field. My professional priorities in emergency medicine, as a physician, have been to provide the highest quality patient care that I am capable of and to work, as a leader, toward achieving a practice environment that facilitates the most efficient and effective patient care. Using these guiding principles, I am convinced that the two top issues facing ACEP members today are access to care and patient safety.

Emergency medicine is recognized by the public as a valued and essential public service, yet access to emergency care is being threatened. Financial barriers are emerging and include high co-payments, high deductibles, restrictive rules regarding out-of-network care, and lack of adequate health care coverage for all patients. Patients do not choose where and when they will need our services and should not face financial penalties for seeking emergency care. Likewise, emergency physicians do not choose which patients they will see on any given day and, furthermore, are required by EMTALA to medically screen all patients. Fair payment is one of the key drivers for access to care by allowing for staffing with board-certified emergency physicians, in adequate numbers, to provide timely high-quality care.

Fair payment is one of the most pressing issues facing emergency physicians in pro-

protecting patient access to care. ACEP has the opportunity to use strategies such as the Clinical Emergency Data Registry (CEDR) and other data sources to demonstrate the value of emergency care and justify fair payment. ACEP can also promote how to use these data to quantify how restricted access to care negatively impacts patients, most notably for patients with behavioral health needs and admitted patients who sit for hours in the ED waiting for an inpatient bed, and to suggest possible solutions.

Boarding is a threat to patient safety, not only to the patients who are being held in the ED but also to patients who seek initial evaluation, because needed treatment space is otherwise occupied. Admitted patients who are held in the ED have worse outcomes, have longer lengths of stay in the hospital, and divert resources that should be used to care for others in the ED.

We need to solve ED boarding through advocacy and by partnering with insurers and others in the health care industry to identify the harm and costs associated with delays and to link hospital and behavioral health payments to the reduction and elimination of boarding.

ACEP can play a leading role in elevating the stature of our specialty at the hospital level by advocating for our patients and being given the resources to provide the highest quality care. By achieving our patient safety goals, emergency medicine will be recognized as a major factor impacting outcomes throughout the health care system and promoting the health of the community.

Rebecca Parker, MD, FACEP (Illinois)
Current Professional Positions: attending physician, Vista Health System, Waukegan, Illinois; senior vice president, Envision Healthcare; president, Team Parker LLC, con-

sulting group for coding, billing, and compliance; clinical assistant professor, Texas Tech University El Paso Department of Emergency Medicine

Internships and Residency: emergency medicine residency, Texas Tech University Health Sciences Center El Paso

Medical Degree: MD, Northwestern University Medical School (1995)

Candidate Question Response

✓ Our top issue is to implement the Affordable Care Act (ACA). Our specialty must cement its role as the nexus of emergent delivery care and then expand beyond the emergency department to lead the new acute care continuum. ACEP has an unprecedented opportunity to provide strategy for this collaborative effort. The security of our beloved specialty both clinically and financially will give us the opportunity to soar.

Our clinical world is rapidly changing. We take care of the sickest patients every single day, and we save lives. We know what to do with both critically ill and obviously well patients. The problem lies with the “in-betweeners”: those patients not ill enough to stay but not well enough to discharge or those without access to a clinic or specialties such as psychiatry.

In response to this issue, our colleagues are doing what they do best: piloting creative solutions. With urgent care centers, free-standing EDs, telemedicine, paramedicine, care coordination, and observation units, our emergency physician colleagues are delivering cutting-edge care to our patients.

Since the passage of the ACA in 2010, ACEP members have focused on quantifying and advocating for the value of emergency medicine and the emergency physician. With the Supreme Court decisions that upheld key portions of the ACA, along with recent passage of the SGR repeal (Medicare Access and

CHIP Reauthorization Act, or MACRA), the importance of advocating for the value of emergency physicians is now paramount.

With the MACRA-mandated reform, we know our Medicare pay is stable. We also know our pay will be tied to quality measures and alternative payment models (APMs). Now is the time to secure our place within the chorus of voices working together to implement health care reform.

First, we must finish creating our specialty’s first quality registry (Clinical Emergency Data Registry, or CEDR) and follow it with an economic registry. With these registries, we can create clinically relevant quality measures, improve the care we deliver, and quantitatively prove our value while fighting insurer misbehavior. Second, we’ll develop APMs by sharing our members’ innovative approaches. We need to bring together these pilot models to create APMs, such as accountable care organizations, to be the collaborative physician leaders in the new acute care continuum. The only way we can practice the medicine we want is to create the practice we want.

Another top issue is workforce stability, which includes growth and diversity.

Workforce stability starts with job satisfaction. We need scribes to help with burdensome electronic medical records and advance practice providers so we can focus on the sickest patients. We need to address graduate medical education funding gaps by advocating for the new Congressional funding proposals, create alternative-funding models, and maximize the business plans of our current programs. And finally, we need to support our current and future emergency physicians by ensuring their health and helping them fulfill their mission of helping people.

For the first time, America has four generations in the workforce. Those with many years of service look for alternative practice

options and new ways to contribute. The new generation of emergency physicians strive to find their home and their voice as they begin their journey. As a mid-career physician, I have the benefit of following the trails of my mentors and blazing new trails for my mentees.

Our residents are more diverse every year. For example, nearly 40 percent of emergency medicine residents are women, and our women attending physicians will climb beyond the current 25 percent. We must account for all types of diversity when creating the practice model of the future.

Emergency medicine’s cultural diversity is one of its strengths, and we should play to that strength. My goal for ACEP is to include all physicians and embrace their transitions and diversity. Our compassionate nature helps us deal with daily trauma and pain that most never see in a lifetime. We must turn that compassion inward upon ourselves.

Both our workforce studies and daily practice show that we have a tremendous need for emergency physicians. This diverse approach will help our colleagues have long, enjoyable careers and successfully recruit the best and brightest medical students to our specialty with a simple message: we take care of our own.

By creating our next practice together, championing and supporting one another, we will conquer the challenges before us. We will never stop fighting for the right of emergency physicians to deliver high quality care and receive fair and just payment for that high quality care. I am confident that we can create the practice we want, secure the pay we deserve, and enjoy practicing emergency medicine. ACEP has the talent, the creativity, and the passion to conquer this challenge.

These are the top two issues, and I will accomplish these goals as President. 🙌

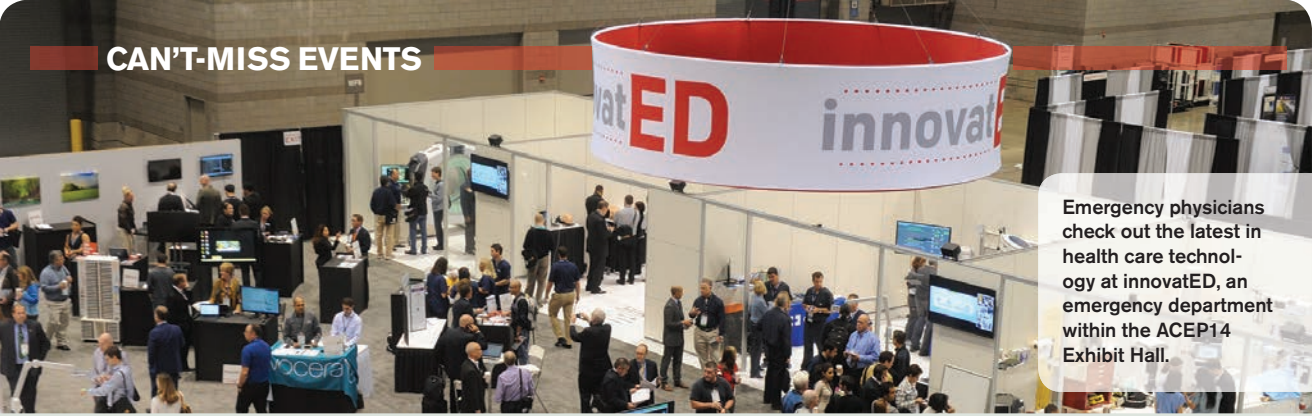
NEWS FROM THE COLLEGE | CONTINUED FROM PAGE 3



ACEP Launches Ultrasound Accreditation Program

ACEP and the Emergency Ultrasound Section have launched a Clinical Ultrasound Accreditation Program (CUAP). CUAP is administered by an independent board whose reviewers operate under the auspices of ACEP. As such, the accreditation organization understands emergency medicine and clinical bedside ultrasound. ACEP promotes guidelines for those practitioners who perform clinical, point-of-care ultrasound in the emergency setting. This accreditation system promotes the goals of quality, patient safety, communication, responsibility, and clarity regarding the use of emergency ultrasound.

This program includes standards for administration of an ultrasound program, education and training of health care providers, ultrasound examination performance and interpretation, equipment management, transducer disinfection, image acquisition and retention, and confidentiality and privacy. Visit www.cuap.acep.org for more information. 🙌



DATE	EVENT	PLACE	WEB SITE
AUG. 6–11, 2015	Teaching Fellowship Session 1	Dallas	www.acep.org/tf
OCT. 26–29, 2015	ACEP15	Boston	www.acep.org/acep15
NOV. 2–9, 2015	Emergency Medicine Basic Research Skills (EMBRs) Workshop Session 1	Dallas	www.acep.org/embrs
NOV. 16–20, 2015	ED Directors Academy Phase 1	Dallas	www.acep.org/edda
MARCH 8–10, 2016	Advanced Pediatric Emergency Medicine Assembly	Lake Buena Vista, Florida	www.acep.org/pem
MARCH 14–18, 2016	Teaching Fellowship Session 2	Dallas	www.acep.org/tf
APRIL 3–5, 2016	EMBRs Workshop Session 2	Dallas	www.acep.org/embrs
MAY 15–18, 2016	Legislative Advocacy Conference	Washington, D.C.	www.acep.org/lac

ACEP Board Approves tPA Clinical Policy



Final recommendations incorporate ACEP member feedback

Among the 50 comments received on the draft policy, some were more impactful than others. For example, some appropriately pointed out that the draft Level A harm statement was not action oriented, which is one of the primary aims in developing recommendations that are useful to clinicians.

—Michael D. Brown,
MD, FACEP

ACEP’s “Clinical Policy: Use of Intravenous Tissue Plasminogen Activator for the Management of Acute Ischemic Stroke in the Emergency Department” was approved by the Board of Directors in its June 24, 2015, meeting in Dallas. The 2015 tissue plasminogen activator (tPA) policy revised one passed in 2012.

A writing subcommittee of the ACEP Clinical Policies Committee, chaired by Michael D. Brown, MD, FACEP, conducted a systematic review of the literature to derive evidence-based recommendations to answer two clinical questions. The table (right) displays the 2015 draft recommendations on the left and the final published recommendations, which incorporate feedback from the ACEP member comment period, on the right.

As Dr. Brown explained, “Among the 50 comments received on the draft policy, some were more impactful than others. For example, some appropriately pointed out that the draft Level A harm statement was not action oriented, which is one of the primary aims in developing recommendations that are useful to clinicians. Therefore, the statement regarding considering the risk of sICH associated with tPA was moved to follow the action-oriented Level B recommendations. Other comments highlighted the fact that the risk of sICH is dependent upon the characteristics of the individual patient; thus, including average estimates of risks in the recommendation could be misleading. However, estimates for potential benefit and harm (ie, number needed to treat, number needed to harm) based on the clinical trial with the highest class of evidence for each critical question (Class I for Question 1 and Class II for Question 2) were retained in Appendix D as examples of how one might initiate the process of shared decision making.”

So what in the original 2012 policy was changed in the 2015 policy?

Here’s a summary of the updates:

- This revised policy utilized an updated clinical policy development process that includes formally trained methodologists grading the research evidence.
- There were no Level A recommendations since this level requires a high degree of clinical certainty.
- Although Level B recommendations reflect a moderate degree of clinical certainty, the purposeful choice of wording in the recommendations differentiates the action-oriented statements for Question 1 and Question 2.
- The Level C recommendations, based on consensus opinion, emphasize

Table 1: Recommendations for tPA Use for Managing Acute Ischemic Stroke

Question 1. Is intravenous (IV) tPA safe and effective for patients with acute ischemic stroke if given within three hours of symptom onset?

Draft Recommendations

Level A recommendations: The increased risk of symptomatic intracerebral hemorrhage (approximately 7 percent compared to a baseline of 1 percent) must be considered when deciding whether to administer IV tPA to acute ischemic stroke patients.

Level B recommendations: With a goal to improve functional outcomes, IV tPA may be given to carefully selected acute ischemic stroke patients within three hours after symptom onset at institutions where systems are in place to safely administer the medication.

Level C recommendations: Shared decision making between the patient (and/or their surrogate) and a member of the health care team must include a discussion of potential benefits and harms prior to the decision whether to administer IV tPA for acute ischemic stroke. (Consensus recommendation.)

Final Recommendations

Level A recommendations: None specified.

Level B recommendations: With a goal to improve functional outcomes, IV tPA should be offered and may be given to selected patients with acute ischemic stroke within three hours after symptom onset at institutions where systems are in place to safely administer the medication. The increased risk of symptomatic intracerebral hemorrhage (sICH) should be considered when deciding whether to administer IV tPA to patients with acute ischemic stroke.

Level C recommendations: When feasible, shared decision making between the patient (and/or his or her surrogate) and a member of the health care team should include a discussion of potential benefits and harms prior to the decision whether to administer IV tPA for acute ischemic stroke. (Consensus recommendation.)

Question 2. Is IV tPA safe and effective for patients with acute ischemic stroke treated between three to four and a half hours after symptom onset? Evidence was graded, and recommendations were made according to the strength of the available data.

Draft Recommendations

Level A recommendations: None specified.

Level B recommendations: Despite the known risk of sICH and the variability in the degree of benefit in functional outcomes, IV tPA may be given to carefully selected acute ischemic stroke patients within three to four and a half hours after symptom onset at institutions where systems are in place to safely administer the medication.

Level C recommendations: Shared decision making between the patient (and/or their surrogate) and a member of the health care team must include a discussion of potential benefits and harms prior to the decision whether to administer IV tPA to ischemic stroke patients between three to four and a half hours after symptom onset. (Consensus recommendation.)

Final Recommendations

Level A recommendations: None specified.

Level B recommendations: Despite the known risk of sICH and the variability in the degree of benefit in functional outcomes, IV tPA may be offered and may be given to carefully selected patients with acute ischemic stroke within three to four and a half hours after symptom onset at institutions where systems are in place to safely administer the medication.

Level C recommendations: When feasible, shared decision making between the patient (and/or his or her surrogate) and a member of the health care team should include a discussion of potential benefits and harms prior to the decision whether to administer IV tPA for acute ischemic stroke. (Consensus recommendation.)

the importance of shared decision making when feasible.

- The potential for benefit and harm associated with the use of intravenous tissue plasminogen activator in acute ischemic stroke

is summarized in Appendix D of the policy.

This clinical policy is posted on the ACEP Web site at www.acep.org/clinicalpolicies. It will be published in *Annals of Emergency Medicine* in September 2015. ☺

POT (BAD) LUCK | CONTINUED FROM PAGE 1

The Problem Grows, and the ED Shifts to Disaster Mode

As more patients with these symptoms arrived, some of the patients' families recognized one another from their attendance at a Sunday potluck lunch at a church. The attendees consumed home-made dishes prepared by church members, and the leftovers were shared with a local senior citizens' center. One of dishes was a potato salad made from home-canned potatoes.

As the second day progressed, many more persons arrived in the ED with rapid onset of symptoms, including the first patient who would die. The accelerated pace of symptom onset was a great concern to the ED staff. It was feared that more victims could be in their homes, unable to recognize the unusual symptoms and not able to seek help. Therefore, management of this incident would need to include an active process of identifying all potential victims and locating and notifying them. This required an extensive interchange of information with church leadership, family members of the victims, and hospital staff. There were ultimately more than 50 adults and children considered at risk.

The subsequent 48 hours were consumed by a coordinated internal and external disaster response, with the ED serving as ground zero. The hospital incident command system (HICS) was activated, and the center of operations was located in the ED conference room. The operations and planning sectors included the frontline ED staff, local and state public health authorities, and the medical staff leadership of the medical center. Additional resources were placed in service, with regional fire and emergency medical services (EMS) leaders working with church leaders to systematically locate every individual who attended the potluck.

The ED evaluated a total of 53 patients with possible exposure, with John Scott, DO, personally evaluating almost all of those individuals. Having a single physician evaluate and oversee the patients presenting with an unusual disease is a very effective way to achieve consistency and manage patient and family concerns. Most with symptoms were complaining of blurred or double vision and difficulty swallowing. Several only complained of nausea. Almost all had normal initial neurologic exams. Those who were

symptomatic had ptosis and difficulty swallowing and phonating. This progressed rapidly to respiratory failure and the need for mechanical ventilation.

The medical staff leadership organized a coordinated approach to patient care. The first patients who arrived utilized all of the ICU resources, so regional coordination was organized with all adult and pediatric hospitals in the Columbus, Ohio, area. Subsequent ill patients were stabilized and transferred to those hospitals. A large number of ambulances were staged in the ED parking lot to provide expedited transport. As of the last report from the state department of health, 21 patients were confirmed to have botulism, and 10 additional cases were suspected.

quired an extensive and coordinated approach. No local diagnostic testing was available to establish a diagnosis; clinical criteria were used. The Ohio Department of Health, working with experts from the CDC, coordinated to acquire and utilize the antitoxin. An event with this many patients requires the use of antitoxin from storage sites in various places, all coordinated through the CDC. Because supplies were limited, treating physicians had to allocate the antitoxin to those most in need.

Lessons Learned

The exemplary response to this event began with the teamwork of the ED staff at Fairfield Medical Center. The emergency response required all clinical and

support staff of the ED to work with patients and families to establish the risk and degree of exposure, coordinate the need for aggressive care for those who required immediate support, and arrange for admission and transfer. ED leaders worked with regional fire and EMS personnel to locate victims and provide lifesaving care. As with other public health emergency events, there were a number of "worried well" who had to be reassured and released.

Here are some practical pearls for identification, diagnosis, and management of multiple casualty incidents related to toxins:

- Identification of patients suffering from atypical toxidromes involves a high degree of clinical suspicion.
- Neurotoxins can produce varying degrees of impairment, with a few having recognizable patterns of spread. *Clostridium botulinum* intoxication in adults affects central systems.
- Early establishment of the HICS and an incident action plan, crafted by emergency physicians and others, is critical.
- In an event that involves an unusual disease and a critical clinical evaluation, a small number of clinicians should manage as many patients as possible.
- Medical care plans should be coordinated with the local specialists by having a face-to-face discussion supplemented by disease experts using video and audio links, if needed. In this case, CDC expertise was needed to coordinate the use and release of the antitoxin, and this could be provided efficiently using phone conferences.
- Certain events require an active process of victim identification and notification, and those events must have timely alerting of regional law enforcement, fire, EMS, and public health resources. 📞

DR. AUGUSTINE is director of clinical operations at EMP in Canton, Ohio; clinical associate professor of emergency medicine at Wright State University in Dayton, Ohio; vice president of the Emergency Department Benchmarking Alliance; on the ACEP Board of Directors; and an ACEP Now editorial advisory board member. **DR. SCOTT** is the emergency department assistant director at Fairfield Medical Center in Lancaster, Ohio.



ILLUSTRATION/PAUL JUESTRICH; PHOTOS SHUTTERSTOCK.COM

Working in conjunction, infectious disease consultants, neurology, the hospitalist group, public health officials, and Centers for Disease Control and Prevention (CDC) experts mapped a uniform patient approach. The local hospitalist staff was expanded, and the plan called for all exposed but asymptomatic patients to be admitted for careful observation. Those who refused admission received phone calls every six to eight hours to check on their status. Two patients left the ED against medical advice, and one was found collapsed after a status phone call went unanswered. He was found in extremis and was resuscitated and intubated after his home was entered.

Diagnostic evaluation and treatment also re-

If your department's resources are overwhelmed by an outbreak, have ambulances standing by to take stable patients to nearby emergency departments.



Tourniquets Are Back!

Restoring blood flow to an old concept

BY MARK PIERCE, MD

The ACEP Clinical Policies Committee regularly reviews guidelines published by other organizations and professional societies. Periodically, new guidelines are identified on topics with particular relevance to the clinical practice of emergency medicine. This article highlights recommendations for external hemorrhage control published by the American College of Surgeons (ACS) Committee on Trauma in 2014.¹

So your prehospital guys want to use tourniquets. This seems to be a pretty frequent situation nowadays. Everyone has heard about the success of tourniquets in the battlefield; why not use them in civilian care? After all, isolated extremity trauma carries a significant risk of morbidity and mortality. Kauvar et al published a study focusing on the rate of death and amputation among a cohort of patients with isolated lower-extremity trauma as recorded in the National Trauma Data Bank. They found that the mortality rate is 2.8 percent and the major amputation rate is more than double that at 6.5 percent.² Moreover, a committee that included representatives from ACEP and the National Association of Emergency Medical Services Physicians recommended that all basic and advanced life support ambulances carry commercially available arterial tourniquets.³ With all this in mind, the ACS Committee on Trauma also reviewed this topic and published new evidence-based guidelines in 2014 on appropriate use of tourniquets.¹ The

project looked at extremity and junctional (ie, in the groin proximal to the inguinal ligament, the buttocks, the gluteal and pelvic areas, the perineum, the axilla and shoulder girdle, and the base of the neck) hemorrhage.

The ACS Committee on Trauma members included experts from both the United States and Canada representing a variety of practitioners. Among them were experts in prehospital trauma care from the military's Committee on Tactical Combat Casualty Care, PreHospital Trauma Life Support, civilian state emergency medical services (EMS) directors, trauma surgeons, emergency physicians, a pediatric surgeon, an EMS researcher, a paramedic, as well as a Grading of Recommendations Assessment, Development, and Evaluation methodologist. This group searched 13 databases for articles printed in English and reporting on prehospital care of traumatic hemorrhage with tourniquets or hemostatic dressing kits currently available in the United States. After exclusions and reviews, 16 clinically relevant studies on tourniquet use and seven on hemostatic agents were included in the evidentiary table.

Recommendations

The clinical questions focused on tourniquet use and efficiency. The first and most important question addressed the tourniquet's effect on limb salvage, morbidity, and mortality. The committee then made the following *strong* recommendation with a *moderate* level of evidence:

We recommend the use of tourniquets in the prehospital setting for the control of significant extremity hemorrhage if direct pressure is ineffective or impractical.¹

The guidelines stated that "the panel believes that tourniquets used to treat severe extremity hemorrhage have a clear survival benefit, demonstrated by a large and consistent effect size across several studies."¹ This was the only recommendation that the ACS Committee on Trauma identified as a *strong* recommendation based on the available evidence.

The remainder of the tourniquet-focused recommendations addressed differences in tourniquet efficiency, safety, and practice procedures. The following were all classified as *weak* recommendations with *low* quality of evidence to support the statements:

We suggest using commercially produced windlass, pneumatic, or ratcheting devices that have been demonstrated to occlude arterial flow.

We suggest against the use of narrow, elastic, or bungee-type devices.

We suggest that improvised tourniquets be applied only if no commercial device is available.

We suggest against releasing a tourniquet that has been properly applied in the prehospital setting until the patient has reached definitive care.¹

Because there are no studies that directly address differences between tourniquets or timing for removal, the evidence quality was graded as *low* and the resulting recommendations were classed *weak* recommendations.

The committee also sought to provide recommendations on prehospital use of hemostatic agents. In the seven studies identified, gunshot wounds dominated as the primary source of bleeding requiring hemostatic control. The following recommendations are also classified as *weak* recommendations with a *low* quality of evidence.

We suggest the use of topical hemostatic agents, in combination with direct pressure, for the control of significant hemorrhage in the prehospital setting in anatomic areas where tourniquets cannot be applied and where sustained direct pressure alone is ineffective or impractical.

We suggest that topical hemostatic agents be delivered in a gauze format that supports wound packing.

Only products determined effective and safe in a standardized laboratory injury model should be used.¹

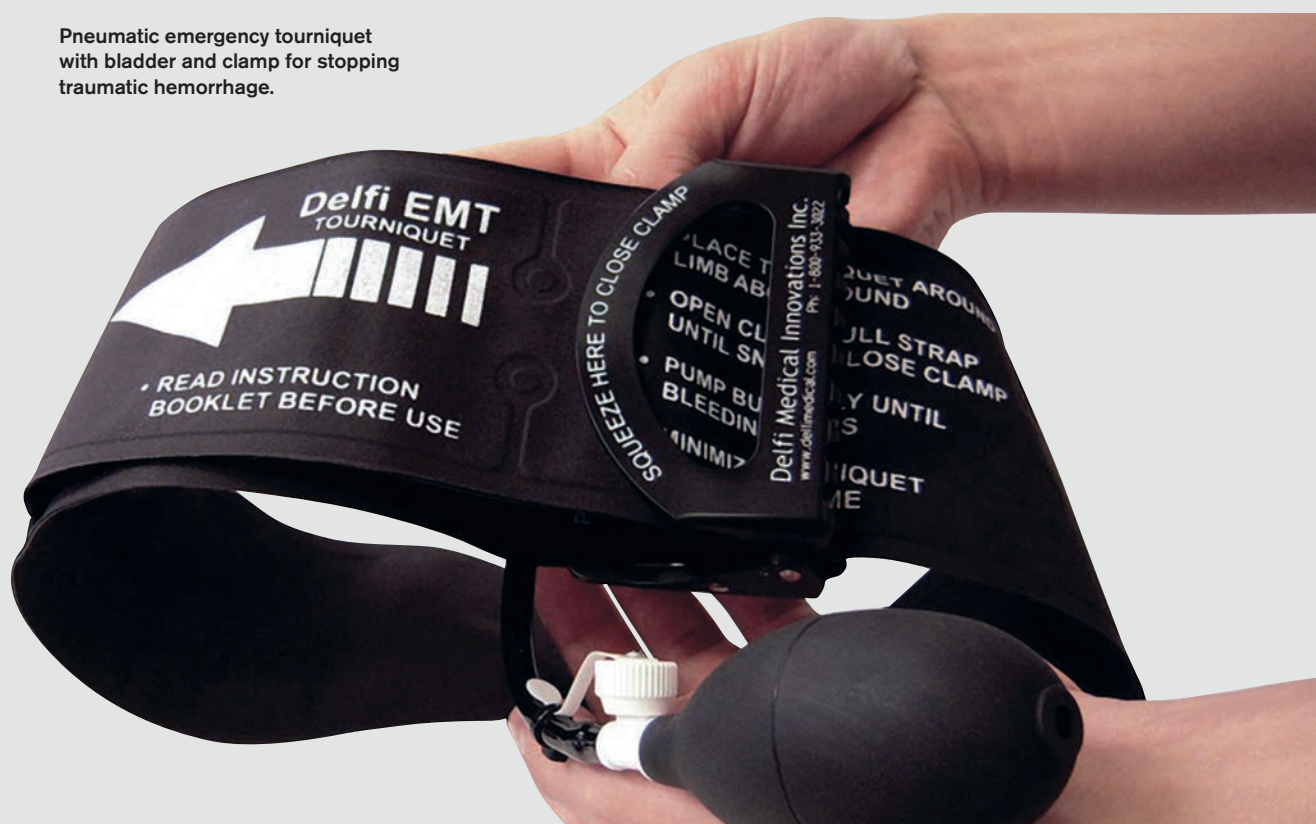
Overall, the ACS Committee on Trauma clearly favors use of tourniquets and hemostatic agents for extremity and junctional hemorrhage that is uncontrollable with direct pressure. There is still much research that needs to be performed to enhance our knowledge of the risks and benefits of tourniquet use. ☺

References

1. Bulger EM, Snyder D, Schoelles K, et al. An evidence-based prehospital guideline for external hemorrhage control: American College of Surgeons Committee on Trauma. *Prehosp Emerg Care*. 2014;18:163-173.
2. Kauvar DS, Sarfati MR, Kraiss LW. National trauma databank analysis of mortality and limb loss in isolated lower extremity vascular trauma. *J Vasc Surg*. 2011;53:1598-1603.
3. American Academy of Pediatrics; American College of Emergency Physicians; American College of Surgeons Committee on Trauma; Emergency Medical Services for Children; Emergency Nurses Association; National Association of EMS Physicians; National Association of State EMS Officials. Equipment for ground ambulances. *Prehosp Emerg Care*. 2014;18:92-97.

DR. PIERCE is a new attending at St. Thomas Rutherford Hospital in Murfreesboro, Tennessee. He wrote this article as the 2014–2015 EMRA representative to the ACEP Clinical Policies Committee while finishing residency at the University of Virginia.

Pneumatic emergency tourniquet with bladder and clamp for stopping traumatic hemorrhage.



EMERGENCY MEDICINE BOARD REVIEW COURSE

The Highest Rated Preparation Course on the EMRA Website!
(For Qualifying Exam)

August 6 – 9, 2015

Crystal Gateway Marriott – Arlington, VA

August 24 – 27, 2015

Planet Hollywood Resort & Casino – Las Vegas, NV

19th
Annual

THE NATIONAL
**EMERGENCY MEDICINE
BOARD REVIEW COURSE**

“The best lecturers out there...”

“This is the BEST FACULTY I have ever had at any conference.”

“The hardest course I’ve ever loved.”

Over 1,700 Physicians Each Year (Over 25,000 Since Inception)
Entrust Their Exam Prep to the National EM Board Review Course.

For more information on all CEME Courses, call toll-free:

CEME

Center for Emergency Medical Education

(800) 651-CEME (2363)

To register online, visit our website at: www.ceme.org

34.75 AMA PRA Category 1 Credits™

The Center for Emergency Medical Education (CEME) is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

The Center for Emergency Medical Education (CEME) designates this live material for a maximum of 34.75 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

How to Implement Palliative Care Principles in the ED

CASE STUDIES IN PALLIATIVE CARE

BY REBECCA GOETT, MD, MARNY FETZER, MD, KATE ABERGER, MD, FACEP, AND MARK ROSENBERG, DO, MBA

PATIENTS WHO LIVE WITH COMPLEX SERIOUS ILLNESS are a large proportion of the patients we see in the emergency department. The ED is the staging area for patients at all critical points of their serious illness. These difficult patients and their families are often bewildered and defensive, having been to numerous specialists and facilities in an attempt to control their illness. We have a unique opportunity in the ED to make a difference. Palliative care principles can be applied in the ED under many circumstances. Discussing serious illness, guiding future care such as code status and advance care planning, prognosticating, managing symptoms, and dispositioning can all be addressed.

The following actual cases illustrate palliative care principles applied to common ED scenarios: the extreme, the game changer, and the mundane. We hope to convey the significant difference that palliative interventions in the ED can make to families, caregivers, and the overall trajectory of the patient's care.



CASE 1: THE EXTREME

A 69-year-old man presented with hematemesis, headache, and visual changes. He had a history of metastatic prostate cancer and was currently undergoing chemotherapy. On exam, he was very pale with dried blood around his mouth, lethargic, and in moderate distress. While in the ED, he deteriorated rapidly, became unresponsive, and started posturing. During intubation, the medical team also noticed one of his pupils was blown. His blood work showed pancytopenia, including platelets of 5,000.

- 1) **Standard approach:** Intubate, resuscitate, computed tomography (CT) scan when stable, and admit to the intensive care unit (ICU).
- 2) **Palliative approach:** Invite family to witness the resuscitation, initiate prognosis conversations with wife (early), ask about advance

directives, discuss the prognosis clearly and realistically explore the possibility of terminal extubation, provide aggressive symptom management, and admit to floor.

More history was obtained from his wife, who was distraught but able to communicate well. The patient was currently receiving chemotherapy for prostate cancer metastatic to bone. He had received a double dose the week before because the couple were supposed to go on a cruise that week. That morning, he started vomiting, and when the wife got home from work, she saw that it was bloody and he was much sicker than he ever had been. He had no advance directives, but she knew that he did not want to be kept alive by machines. His wife was aware that the chemotherapy was palliative, meaning not curative. He had been tolerating it well so far with minimal side effects and was still very functional at home. They were hopeful for more time.

We invited the wife to watch the resuscitation, and together with her, we decided to intubate the patient in order to obtain the CT scan. The scan showed a large left-sided bleed with 2 cm midline shift and herniation. This confirmed the prognosis, which had already been shared with the wife based on our clinical findings: this type of injury to the brain is not survivable. She told us to stop everything that could possibly prolong his suffering. We moved him to a special room in the ED, turned off the monitors, and called the chaplain at the family's request. The wife called in her

family, and when everyone was present, we extubated him. He lived for two more hours, during which time we treated his dyspnea with morphine and his secretions with sublingual atropine drops, plus answered all of his family's questions. We admitted him to a hospice room on the floor. He died in the ED just as a room became available.



CASE 2: THE GAME CHANGER

A 59-year-old woman with colon cancer metastasized to the liver, pancreas, lung, and brain presented to the ED with shortness of breath for one day and abdominal pain. On exam, she was in moderate respiratory distress with tachypnea, tachycardia, hypertension, and hypoxia. Her lungs were clear, and her abdomen was diffusely tender with a hard palpable mass. Her daughter was with her at the bedside. Per her daughter, the patient had been feeling short of breath all day and then syncope (without head trauma) trying to get back to bed from the bathroom.

- 1) **Standard approach:** Labs, chest X-ray, CT angiography of the chest for possible pulmonary embolism, and admit to ICU.
- 2) **Palliative approach:** Symptom management, goals-of-care discussion, work-up, and disposition.

On further history, we found that the patient had extensive chemotherapy and radiation, most recently whole brain radiation two months ago that shrank the tumor briefly, but a recent scan showed tumor recurrence. Her oncologist had stated that there were no further

chemotherapy options but discussed possible experimental treatment. She suffered constantly from abdominal pain, and she was treated with both long-acting morphine and short-acting morphine. However, upon further questioning, the patient admitted she was not taking any opiates, only the occasional Tylenol because she did not want to feel "drugged." The patient was essentially opiate naive. She was given 5 mg morphine, 4 mg ondansetron, and 25 mg Benadryl. After a half hour, the patient was resting comfortably and was able to walk with assistance to the bathroom. Her vitals normalized, and her chest X-ray and labs were all essentially normal.

Now that the patient was comfortable and the daughter was calmer, a physician sat down with them and asked gently, "What do you think is going on with your cancer?" The patient replied, "I think I am in the final stage; I think I am dying." The physician said nothing and just sat with them. Finally, the physician said, "I think you are right. If conditions were ideal, where do you want to be?" Without hesitation she said, "Home." Her daughter agreed. The daughter handed the physician an advance directive that the patient filled out 10 years ago before she got sick. The medical team reviewed it. No machines, no heroics, no experimental treatments.

We explained that a likely cause for her shortness of breath was that she was not treating her pain adequately and she was trying to live with an incredible amount of pain. Another worrisome alternative was a pulmonary embolus. If this were the case, the treatment would be a blood thinner. Blood thinners are contraindicated in brain metastases because of the high likelihood of bleeding. When we explained this to the family, they agreed that we should not do the scan because it would not change our management or the outcome. Since we were able to control her symptoms with a small dose of morphine, we were confident that this could be easily converted to oral medication to take at home.

How do you honor this patient's wishes to go home? "I think the best way to get you home is to use the hospice service," we advised. We explained what hospice is and what it isn't. In her case, she had a primary caregiver, her daughter, and symptoms that can be controlled with oral medication. Hospice would provide all the medical equipment, including medications, with a nurse on call 24-7. There would be home health aides that come weekly, as well as social

workers and bereavement services available. They would help the patient and her family make the most of the time she has. The patient and daughter loved the idea. We called the local hospice agency, and they arranged to meet the family and patient at home later that day. We discharged the patient.



CASE 3: THE MUNDANE

A 94-year-old woman was brought from home by her niece, who had been away for several days on business and unable to check on her aunt. On exam, the patient had swollen, red, painful legs that had worsened over the past week. Her current medical history included hypertension, hyperlipidemia, and congestive heart failure (CHF). She was put on antibiotics by her doctor, but they had not

improved her symptoms. She was fully oriented and stated she did not want to come to the hospital. Her exam and work-up verified leg cellulitis, resulting in mild sepsis without evidence of CHF.

To think about this case in the broader context of this woman's life, we needed to think about her illness trajectory. She was 94 with multiple chronic conditions. This event most likely heralded the beginning of a steady decline, punctuated by trips to the hospital and rehab, with possibly a short trip home, only to be repeated until her death.

1) Standard approach: Intravenous antibiotics, admit to floor, and default full code.

2) Palliative approach: Discuss her prognosis, goals of care, and trajectory of illness and fill out a physician order for life-sustaining treatment (POLST) form with patient and power of attorney (POA).

While we waited for her primary physician to call back, we asked a few basic questions. What had her life been like the past few weeks? Why didn't she want to come to the hospital? Who will make decisions for her when she is no longer able? Does she have an advance directive or living will? We found out that she had been very independent until the last couple of months when she had required more and more assistance. She did not want to come to the ED because she knew she would

be admitted, and she hated being in the hospital. She did not want us to "do anything" to her. Her goals were to remain as independent as possible at home. Her niece was her POA, and she, indeed, had a living will but not with her. We asked what her living will said, and she said that she did not want to be on life support or on any machines.

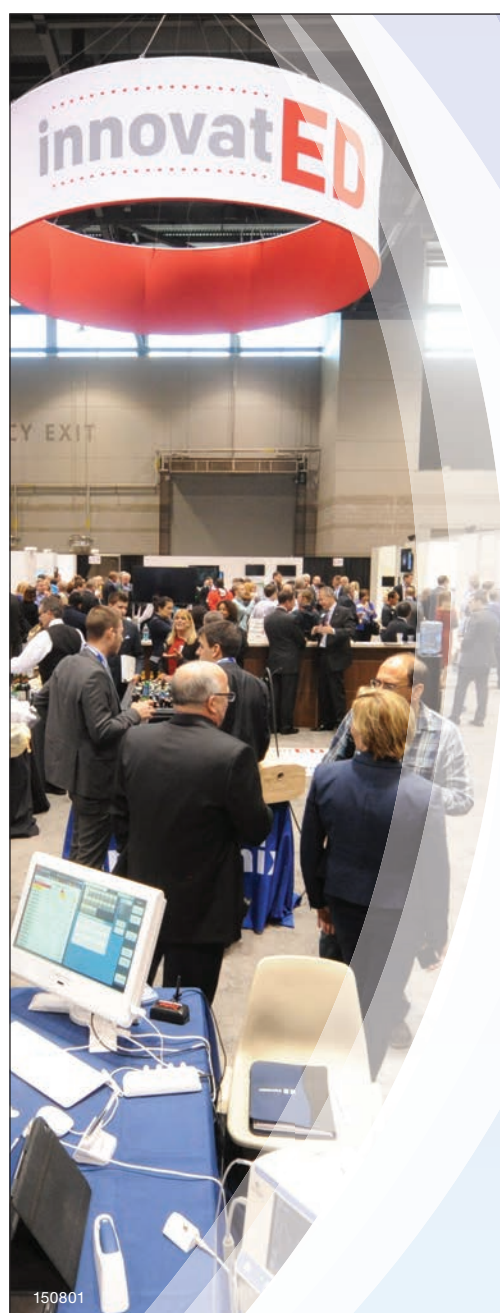
We explained to her that we would not do anything to her that she did not want us to do and that we would make sure her wishes would be followed in the event she worsened. We gave her our prognosis: she would probably improve from this infection, but she would most likely not be able to function at the level she had before and would likely need more help.

She and her niece were visibly relieved. The patient was admitted with a code status of do-not-resuscitate/do-not-intubate. Although it would probably not be relevant during this admission, we filled out a POLST form and explained that it would follow her to every facility to help ensure her wishes were followed. Our discussion and plan laid the groundwork for her admission and subsequent care because now future providers can see the POLST and take into account her goals of care.

As these three cases illustrate, the context of a patient's serious illness is extremely important. Finding out where the patient falls on the trajectory of the illness (just diagnosed, end-stage, currently undergoing treatment, bouncing back more frequently to the ED) is crucial in prognostication. Aggressive symptom management ensures patient comfort and

family trust in you as the provider and builds a foundation for subsequent conversations. Involving the family early in witnessing resuscitation and communicating prognosis can significantly impact the patient's course. Exploring the patient's goals of care, fears, and hopes can also help you make the most appropriate recommendations for the patient and family. The more doctors or providers speak to families and patients about these issues, the more it becomes a normal part of what we do. Even if the family is completely reticent or shut down in distrust or denial, you can suggest a palliative care consult to the primary physician to continue to work with the family and patient beyond the ED. 📌

The authors are members of the ACEP Palliative Medicine Section. **DR. GOETT** is assistant professor and assistant director for advanced illness and bioethics in the departments of emergency medicine and palliative care at New Jersey Medical School/Rutgers University in Newark, New Jersey. **DR. FETZER** is an emergency medicine attending physician at Advocate Health Care and director of palliative care at Rainbow Hospice and Palliative Care in Mount Prospect and Park Ridge, Illinois. **DR. ABERGER** is core faculty in emergency medicine and palliative medicine at St. Joseph's Regional Medical Center in Paterson, New Jersey. **DR. ROSENBERG** is chairman of emergency medicine at St. Joseph's Healthcare System and associate professor of clinical emergency medicine at New York Medical College.



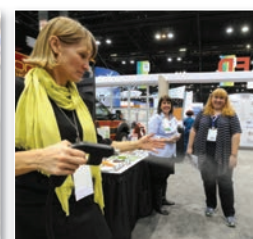
American College of
Emergency Physicians®
ADVANCING EMERGENCY CARE

Explore Innovations in EM at ACEP15

See innovative approaches, procedures, and products that can impact real life situations during live, simulated code events in the **innovatED** experience at ACEP15.

Between mock drills, try out new equipment, learn about patient and staff safety improvements, download relevant content, and connect with clinical experts and industry leaders — all included as part of your ACEP15 registration.

SAVE \$100 – Register with promo code **ACEP15P6**



acep Scientific Assembly
BOSTON 15
OCTOBER 26-29

REGISTRATION
**NOW
OPEN**

WWW.ACEP.ORG/ACEP15

Reserve your room today through
ACEP's official housing partner



There are more than 80 bills in 39 states related to powdered alcohol, and according to *Wired*, Sen. Chuck Schumer (D-New York) has introduced legislation to ban it nationwide, calling it the “Kool-Aid of teenage binge drinking.”

—Robert Glatter, MD, FACEP, emergency physician, Lenox Hill Hospital



DANGER: Palcohol

What emergency physicians should watch for if powdered alcohol hits stores

BY KELLY APRIL TYRRELL

Powdered alcohol could soon be sold in stores throughout the United States, but some say the product, marketed under the name Palcohol, could also bring with it unique health risks.

“People argue there is not enough evidence indicating any more concern than there is for liquid alcohol,” said Robert Glatter, MD, FACEP, an emergency physician at Lenox Hill Hospital in New York. “But there are certainly other hazards. I think the powdered form is appealing, the flavoring is appealing, and it creates a situation where there’s potential for abuse.”

In early April, the Alcohol and Tobacco and Trade Bureau approved the product for sale in the United States but then revoked that approval, calling it an “error,” according to the Associated Press. The product’s maker, Lipsmark, told the Associated Press it would resubmit after making changes to the volume labeling on its packaging. Initial reports indicated Palcohol could be sold as soon as this summer.

When the powder is used as intended, Lipsmark indicates it should be mixed with six ounces of liquid and contains as much alcohol as a glass of wine. The company plans to sell five versions: rum, vodka, Cosmopolitan, Lemon Drop, and Powderita.

Concern stems from the potential for the powder to be snorted by risk-taking teens, accidentally ingested by children, mixed with other substances, and easily concealed and abused.

Dr. Glatter cited a recent case he saw in which a hungry teen babysitter accidentally ingested a brownie infused with marijuana after it had been stored out of sight and forgotten by the adults in the home. Similar unintended incidents may arise with Palcohol, he said.

As of mid June, the National Conference of State Legislatures reported that a dozen states, including Vermont, Tennessee, and Washington, have banned the sale of powdered alcohol, and three additional states have banned it temporarily. There are more

KEY POINTS for Emergency Physicians to Know
BY ROBERT GLATTER, MD, FACEP

- 1 Six ounces of liquid are used to reconstitute the alcohol-based powder. It takes about one minute to reconstitute it, so it might be difficult to use powdered alcohol to spike a drink.
- 2 The biochemistry of Palcohol is based on cyclodextrins, compounds that can absorb up to 60 percent of their own weight in water.
- 3 It is unlikely that Palcohol could be easily snorted since it would likely cause a chemical burn or irritation to the nares and upper airway. It is also unlikely that snorting would represent a significant route to rapid absorption or a quick high, as many packets would be required. The risk for infection and inflammation developing in the sinuses due to elevated sugar content might also be a potential concern. Snorting of the powder might also trigger bronchospasm, especially in persons with asthma or lung disease, and could result in chronic cough or even aspiration.
- 4 Co-ingestion of other substances with the powdered alcohol should be a continued concern when evaluating a patient who may have consumed Palcohol. Its novelty as a powder with multiple flavorings could entice teens to mix in other drugs, resulting in additive effects.
- 5 One packet of Palcohol reconstituted with six ounces of liquid has the equivalent alcohol content of a standard mixed drink.
- 6 Consumers, and especially teens, have the potential to overdose on Palcohol because they may underestimate the potency of the powder and choose to combine multiple packets to gain a more intense effect.

DR. GLATTER is an attending physician in the department of emergency medicine at Lenox Hill Hospital in New York City and clinical assistant professor at Hofstra North Shore-LIJ School of Medicine in Hempstead, New York.

than 80 bills in 39 states related to powdered alcohol, and according to *Wired*, Sen. Chuck Schumer (D-New York) has introduced legislation to ban it nationwide, calling it the “Kool-Aid of teenage binge drinking.”

If, or when, Palcohol enters the market, Dr. Glatter said emergency physicians should be aware of the potential for intoxication resulting from the powder and should work with parents and teens to educate them about the risks. Children presenting with oral burns or a gel-like substance in the mouth and airways may have consumed the powder, which can turn gummy when mixed with saliva, he said.

Snorting the powder may also cause burns, sinus infections, and fungal infection with

bacterial overgrowth, said Dr. Glatter.

When used properly, Palcohol should not be any more problematic than liquid alcohol, and Dr. Glatter noted that banning it could create a black market similar to those that have popped up when other substances, like “bath salts,” have been prohibited. He noted that physicians have expressed their concerns about the product.

“I think this is a disaster in the making, especially for kids,” he said. “We really need to have our guard up and really educate children, teens, and schools about this.”

MS. TYRRELL is a freelance journalist based in Wilmington, Delaware.

MISSION: EFFICIENCY

Put the efficiency principle to work in your life

BY CHAD KESSLER, MD, MHPE, FACEP



SCENARIO 1

IT'S 3 A.M. YOU HAVE A MONSTER DAY TOMORROW working clinically in the emergency department, followed by a lecture to your residents that afternoon, and then back to the office to scramble through the day's 180 emails, while somehow still making the 4 p.m. and 5 p.m. staff meetings. You're almost finished with your business statistics assignment for your MBA finance class, where the professor is extolling the values of the Poisson process. You laugh for a minute in your head and then realize it's 3 a.m. and your eyes are barely open. That's when you hear the faint screams of your 18-month-old, and then you lose it and start to cry at the sheer insanity of your life. Somehow, you get through the night and catch a few hours of sleep. The shift goes well, the lecture awesome, and you pound through email traffic while chiming in with a few well-timed comments during your conference calls to ensure people know you're actually on the phone. The day ends, and you head home. While listening to Wilson Phillips' "Hold On" on the ride home, which you would resolutely deny if questioned, you think, How did I get that all done? Thinking back to your social psychology class in college, or perhaps making it up in your mind, you latch on to the term "the efficiency principle."



SCENARIO 2

YOU HAVE TWO INTERNS WORKING WITH YOU THIS MONTH. One, Georgia, is on top of her game, has been a total rock star in the office, but constantly has a mountain of papers strewn upon her desk, built up with projects that you and various members of your team have piled on her. The other intern, Gregory, is sharp but is clearly not at the same level as his co-intern. He has just finished a few projects, and his desk appears as if it was just spit-shined by Mr. Clean. You have a critical and timely task that needs completion. Whom do you ask for help?

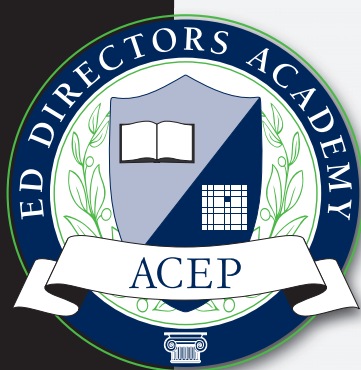
Common sense—which, as we know, is not all that common—might tell you to let Georgia catch up with her work and assign Gregory the task. However, that would be flawed logic. The reason Georgia has that stack on her desk is because she comes through each and every time, and folks in the office now know that she is a doer and will get it done every time. As the old saying goes, if you want something done, give it to a busy person!

CONTINUED on page 19



BEGIN YOUR JOURNEY WITH PHASE I

November 16-20, 2015 | DALLAS, TX



As ED director, you play the role of both physician and business administrator, dealing with budgets, difficult staffing issues, and patient satisfaction.

It can all seem overwhelming, and you may wonder how others in your position handle day-to-day life in the ED.

At ACEP's *ED Directors Academy*, you can hear from veteran practitioners and management experts who have experienced the issues and lived through it, offering you tried-and-true solutions to your questions. Learn why so many see this as the must attend conference for ED directors and those aspiring to become director.

Register today at www.acep.org/edda

or call 800-798-1822, ext. 5

150802

The first, and only, app to offer guidance about complex bleeding disorders

Since 2011, Coags Uncomplicated™ has offered expert clinical information to thousands of your colleagues.



From a survey of 262 HCPs who use Coags Uncomplicated™

89% have used the app as a reference in clinical decision making or case management (average of 12 cases per HCP)

Discover this comprehensive diagnostic resource for yourself

Available on the App Store

ANDROID APP ON Google play

Coags Uncomplicated™ is a reference tool. Clinical correlation and consultation with a hematologist are advised to ensure an accurate diagnosis.

HCP=healthcare professional.

Novo Nordisk Inc., 800 Scudders Mill Road, Plainsboro, New Jersey 08536 U.S.A.

Android™ is a trademark of Google Inc.

App Store™ is a service mark and iPhone® is a registered trademark of Apple Inc.

Coags Uncomplicated™ is a trademark of Novo Nordisk Health Care AG.

© 2015 Novo Nordisk All rights reserved. 0315-00026105-1 April 2015





DR. DAHLE is the author of *The White Coat Investor: A Doctor's Guide to Personal Finance and Investing* and blogs at <http://whitecoatinvestor.com>. He is not a licensed financial adviser, accountant, or attorney and recommends you consult with your own advisers prior to acting on any information you read here.

Keeping Score

Four measurements to hit a financial home run

by JAMES M. DAHLE, MD, FACEP

Question. *I am an emergency physician who recently completed residency. How can I make sure I am as successful in my finances as in my clinical practice?*

A. Business expert H. James Harrington once said, “Measurement is the first step that leads to control and eventually to improvement. If you can’t measure something, you can’t understand it. If you can’t understand it, you can’t control it. If you can’t control it, you can’t improve it.” As emergency physicians, we have become intimately familiar, perhaps too familiar, with business-related metrics (eg, door-to-door time, physician satisfaction rating, and percentage of downcoded charts). There are also metrics for your financial life that can be measured and allow you to “keep score” in working toward your financial goals. Of course, the purpose of keeping score is not to compare yourself to anybody else but to compare your performance from year to year and against your own financial goals. This article will discuss four of the most important measurements.

Your Net Worth

Perhaps the most important measurement someone seeking financial success can monitor is net worth. Net worth is the sum total of all your assets minus the sum total of all your liabilities. Assets include bank accounts, retirement accounts, investments, home equity, and the cash value portion of life insurance. Liabilities are primarily debt, such as student loans, mortgages, auto loans, and credit card debt.

Many financial professionals find it amazing that so many physicians have no idea how much they owe in student loans. It can



dency with a negative net worth due to high student loan burdens. One of their first financial goals should be to get back to a net worth of \$0 as soon as possible. Many doctors find it more difficult to get to \$0 than to go from \$0 to \$1 million in net worth!

Your Savings Rate

Another important financial metric is your savings rate. This is the percentage of money saved in a given year toward your long-term financial goals, such as retirement or college, divided by

I generally recommend physicians save 20 percent of their gross income toward retirement. While 15 percent may be enough if you work long enough and don’t make too many investment mistakes, and 25 to 40 percent may be required for a very early retirement, 20 percent is a good starting place for most doctors. However, 5 to 10 percent is almost surely going to be inadequate. Measure your savings rate each year, and if it is too low to reach your goals, find ways to boost it throughout the year.

Your Tax Rates

I am often surprised to find that physicians have no idea how much they actually pay in taxes. There are really two tax rates worth keeping track of. The first is your effective income tax rate. To calculate this, add up your federal income tax, state income tax, and payroll tax,

then divide that sum by your gross income. For me, this number has varied quite a bit throughout my earning years. It was as low as 5 percent during my time in residency and the military, but it has since risen to around 23 percent. If you find your effective income tax rate is approaching or even over 30 percent, it may be worthwhile to seek out ways to legally lower that burden, such as contributing more to tax-deferred retirement and health savings

accounts, keeping better track of potential deductions, or moving to a state with a lower tax burden.

The second tax rate worth knowing is your marginal tax rate. This number is generally significantly higher than your effective tax rate. The easiest way to calculate it is using tax software upon finishing your taxes each year. Simply add \$1,000 of hypothetical income and see how much your tax bill rises. This year, my tax bill increased by \$418 for that hypothetical \$1,000, so my marginal tax rate is 41.8 percent. The software accounts for federal income tax, state income tax, phase-outs, and even payroll taxes if you are self-employed. Knowing your marginal tax rate is useful when making decisions about money, such as whether to invest in taxable bonds or tax-free (but lower-yielding) municipal bonds in a taxable account. It may also affect how many extra shifts you wish to work, knowing that 30 to 50 percent of every additional dollar you earn is going to taxes. Your marginal tax rate can be lowered using the same techniques used to lower your effective tax rate.

Your Annualized Investment Return

Many investors have no idea what their investment returns are. That makes it very difficult to know if you are on track to reach your goals. It is best to calculate your returns on an after-expense, after-tax basis. The most accurate way to calculate your investment return is using an internal rate of return (IRR) function in a spreadsheet or a financial calculator. The only data needed to do this are the amounts and dates of contributions and withdrawals (including any dividends not reinvested) to the account. Since the contributions will not be regular, you will need to use a function called XIRR, or the internal rate of return with nonperiodic cash flows. This function provides an annualized rate of return as opposed to an average rate of return. It is important to know the difference since the only return you can spend is an annualized one. By way of comparison, the average annual return of the S&P 500, with dividends reinvested, from the years 1927 through 2014 is 12.1 percent. However, the annualized return is just 10.1 percent. This effect is due to the volatility of investment returns; in short, you need a 100 percent gain to make up for a 50 percent loss. The more volatile your investment returns, the greater the difference between your average returns and your annualized returns. A tutorial showing how to use the XIRR function to calculate your return can be found at <http://goo.gl/CkL5jD>.

Keeping score by calculating these simple financial metrics once a year can provide you with the knowledge and motivation you need to reach financial success. ☺

Pour yourself a tall drink of your favorite beverage, sit down with all of your student loan paperwork, and actually add it all up and write it down. Chances are good that, if you have never done this, the total is quite a bit more than you think given the relatively high student loan interest rates.

be scary to add it all up, but it is hard to reach any reasonable financial goal if you don’t know your starting point. Pour yourself a tall drink of your favorite beverage, sit down with all of your student loan paperwork, and actually add it all up and write it down. Chances are good that, if you have never done this, the total is quite a bit more than you think given the relatively high student loan interest rates. Most physicians graduate from resi-

your gross income. While there are many different ways to measure savings rate, because you’re “competing” only with yourself, it only matters that you are consistent with your method. I suggest you count retirement account contributions and other investments as well as paying down debt as “savings.” If you are unsure what to count as income, keep it simple and use your total income from your tax return. It can be found on Form 1040, line 22.



DR. FAUST is an emergency-medicine resident at Mount Sinai Hospital in New York and Elmhurst Hospital Center in Queens. He tweets about #FOAMed and classical music @jeremyfaust.



Highlights From SMACC

by JEREMY SAMUEL FAUST, MD, MS, MA

In 2012, the world of emergency medicine blogs and podcasts was gaining momentum but was lacking two things: a name and a conference to call its own. Today, we have both: Free Open Access Medical Education (FOAM or #FOAMed) and the annual Social Media and Critical Care (SMACC) Conference.

SMACC was conceived by a handful of Australian emergency medicine and critical care physicians as a three-day in-person gathering of the growing and passionate community of emergency medicine and critical care providers who spend the rest of the year sharing information online for free. In 2013, SMACC's first year, more than 700 creators and consumers of #FOAMed descended on Sydney, Australia. From the start, the organizers insisted on dynamic presentations. PowerPoint was not officially banned, but bullet points effectively were. Amazingly, the online ethos of #FOAMed, prizing substance and style in equal doses, genuinely materialized in real life, and a unique entity was born. The following year, the conference moved east to the Gold Coast of Australia and attracted 1,300 delegates. This year in June, SMACC moved out of Australia and came to Chicago (#smaccUS), and for the first time, the conference was acknowledged as an ACEP-accredited conference. More than 2,000 people attended, but unlike most conferences, presenters and delegates included representatives from various disciplines, such as emergency physicians, critical care physicians, nurses, rural practitioners, paramedics, pharmacists—the list goes on. This makes SMACC the only conference I am aware of that consistently brings cutting-edge medical education to multiple disciplines so that we can grow together as a health care community.

Picking actual representative tweets from #smaccUS is impossible. More than an astounding 80,000 tweets tagged #smaccUS were created in June alone by more than 5,000 individual participants. True to the #FOAMed ethos, one need not attend SMACC in order to participate. In fact, each year, all of the lec-

tures and sessions are eventually released for free online. This year, some lectures were broadcast live on the video-streaming app Periscope, further adding to SMACC's reach.

What would SMACC be without a knowledge bolus from Scott Weingart, MD, FCCM (@emcrit)? My favorite "next-shift pearl" from Dr. Weingart's talk "The Resuscitator's Mindset" was tweeted by Rebecca Kornas, MD (@BK_ED_MD), who relayed that, in severely vasoconstricted patients, the automated blood pressure cuffs "will not get actual blood pressure until 4-5th time blood pressure cycles" because the device has to calibrate. That was an immediate practice changer for a lot of people in the audience.

While still not on Twitter, Ashley Shreves, MD, always gets the Twitterverse buzzing when she speaks at a conference, especially when speaking about her area of expertise: palliative care. From Richard Body, MB ChB, PhD (@RichardBody), came this tweet about a good death: "A study of 340 people found their top priority was to be kept clean. Fancy treatments way down list." This is a great reminder that a large part of practicing medicine is not pushing actual medicine per se but simply being humanistic.

Kevin Fong, MSc (@Kevin_Fong), gave an extremely effective presentation on cognitive errors. While we need to take ownership of our failures and try to prevent them, that doesn't mean we are always to blame when things go awry. New Zealand-based intensive care paramedic Haydn Drake (@paramedick-iwi) noted that embedded in Dr. Fong's talk was "a shout out for @EZDrugID." EZDrugID.org is an important multinational nonprofit project that deserves much attention. Its simple mission is to improve the distinctiveness of medical packaging in order to eliminate dangerous look-alike drugs. Dr. Fong showed some cringe-worthy examples. Picture two vials that look identical in shape, size, and color. The only difference is the text. Now realize that one vial contains glycopyrrolate, a drug routinely used in normal deliveries,

while the other contains oxytocin, which can be extremely harmful or even fatal to a fetus. We must be vigilant in our day-to-day practice, but we should also notice that, sometimes, it almost looks as if we are being set up to fail.

Simon Carley, MD (@EMManchester), editor of the hugely popular St. Emlyn's blog and podcast, tweeted an important recurring theme from #smaccUS about the difference between knowledge and certainty. "Science backs this up. Dunning-Kruger effect shows confidence does not equal competence." The Dunning-Kruger graph (see Figure 1) rings true.¹ Once you've seen it, you won't forget it.

Finally, from Irish emergency physician Andy Neill, MBBS (@AndyNeill): "I wasn't at #smaccUS but @KangarooBeach [Tim Leewenburg, MBBS] has posted his talk and it's a must watch guys ... vimeo.com/130819016." This talk is so powerful that it is worth typing in that URL. In this rarest of talks, Dr. Leewenburg combines humility, personal vulnerability, and profound knowledge in a powerful

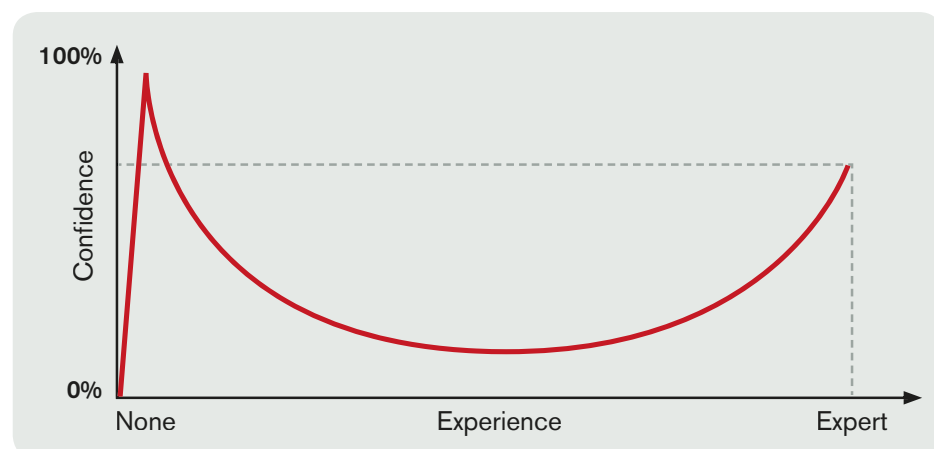
25-minute lecture about a medical error he made, how he came to terms with it after battling depression, and how he eventually made peace with both himself and his patient. It is a deeply moving account that happens to be packed with useful medical pearls.

While one need not attend SMACC in person to enjoy and learn from it, it must be said that SMACC is unlike any conference I've ever attended because it has become something of a family reunion for the #FOAMed world while managing to keep its doors open to newcomers. SMACC is inspirational and insightful while maintaining its edge, delivering what is new and controversial as well as what the future holds for emergency medicine and critical care. I'll see you next June in Dublin, Ireland, at #smaccDub, but until then, I'll see you online! ☺

Reference

1. Kruger J, Dunning D. Unskilled and unaware of it: how difficulties in recognizing one's own incompetence lead to inflated self-assessments. *J Pers Soc Psychol*. 1999;77:1121-1134.

Figure 1. Dunning-Kruger Effect



The Dunning-Kruger effect states that unskilled individuals tend to overestimate their abilities, whereas highly skilled individuals tend to underestimate their competence relative to other people.

EMERGENCY MEDICINE BOARD REVIEW COURSE

The Highest Rated Preparation Course on the EMRA Website!
(For Qualifying Exam)

August 6 – 9, 2015

Crystal Gateway Marriott – Arlington, VA

August 24 – 27, 2015

Planet Hollywood Resort & Casino – Las Vegas, NV

"The best lecturers out there..."

"This is the BEST FACULTY I have ever had at any conference."

"The hardest course I've ever loved."

Over 1,700 Physicians Each Year (Over 25,000 Since Inception)
Entrust Their Exam Prep to the National EM Board Review Course.

For more information on all CEME Courses, call toll-free:
CEME (800) 651-CEME (2363)
Center for Emergency Medical Education To register online, visit our website at: www.ceme.org

34.75 AMA PRA Category 1 Credits™

The Center for Emergency Medical Education (CEME) is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

The Center for Emergency Medical Education (CEME) designates this live material for a maximum of 34.75 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Ultrasound-Guided Knee Arthrocentesis

by BRIAN JOHNSON, MD, MPH, EMILY LOVALLO, MD, DANIEL MANTUANI, MD, MPH, AND ARUN NAGDEV, MD

Mimics such as cellulitis, prepatellar bursitis, or abscess that may be difficult to distinguish from joint effusion on physical examination are easily identified with bedside ultrasound.

The warm, swollen knee is a common complaint in the emergency department, with joint aspiration being the diagnostic test of choice when a septic arthritis is suspected. Point-of-care ultrasound can accurately determine the presence of a joint effusion as well as guide synovial fluid aspiration.¹ The suprapatellar bursa, the largest communicating bursa of the knee joint, allows for a location that is easily visualized with ultrasound and can be rapidly and safely accessed for joint arthrocentesis. A simplified sonographic method for evaluation and aspiration of the knee joint is an important addition for even the most experienced emergency physician.

Background

The provider must first confirm the presence of an effusion before performing a diagnostic arthrocentesis. Classically, the physical exam findings for a knee effusion are swelling, a decreased range of motion, and a ballotable, or floating, patella. Mimics such as cellulitis, prepatellar bursitis, or abscess that may be difficult to distinguish from joint effusion on physical examination are easily identified with bedside ultrasound.² Once the presence of a knee effusion has been confirmed, the standard practice for needle arthrocentesis has been a landmark-based approach. Ultrasound has been shown to be effective in identification of knee effusion as well as allow for real-time visualized technique for joint aspiration.³ In the emergency department setting, ultrasound-guided knee arthrocentesis has been shown to help minimize attempts as well as improve procedural confidence in the hands of novice providers.⁴ Additionally, the suprapatellar approach under ultrasound guidance avoids any tendons or bony or ligamentous structures and facilitates simple and accurate arthrocentesis for the provider.

Procedure

Ultrasound Identification of Knee Effusion

We recommend using the linear



Figure 1. Place the linear transducer in the prepatellar fossa in a longitudinal direction with the probe marker caudal.

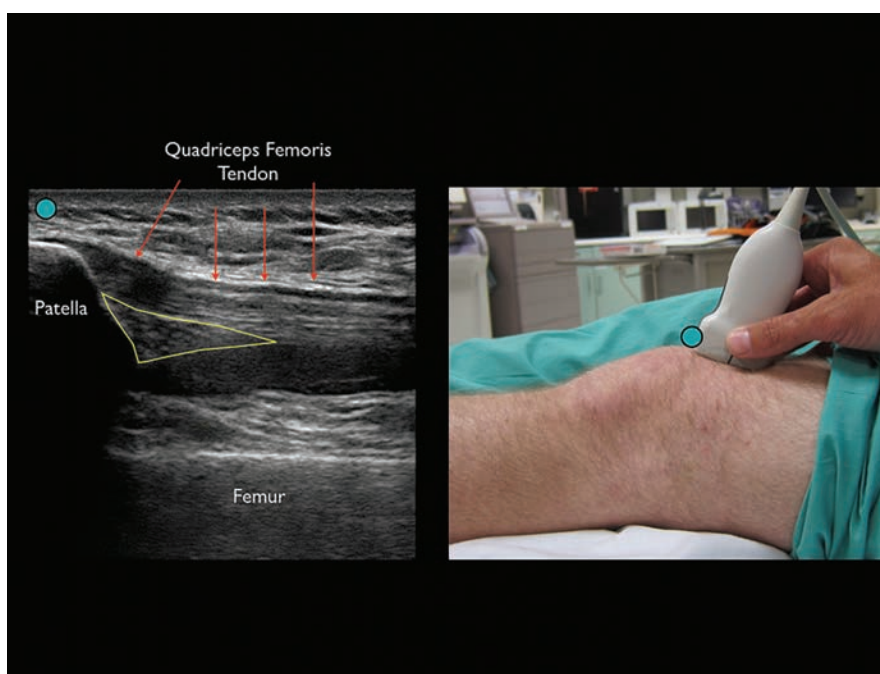


Figure 2. Identify the patella and then slide the transducer cephalad until the approach ultrasound landmarks, including the patella, femur, quadriceps femoris tendon, and fat pad, are appreciated. The effusion will appear as an anechoic (black) space underneath the fat pad. (Green circle indicates ultrasound transducer directional marker.)

transducer (10–5 MHz) for both the identification of the effusion and needle guidance for the arthrocentesis. The patient should be placed in the supine position, with the affected knee slightly flexed (we recommend a small pillow or roll of sheets be placed under the affected knee). Place the linear transducer in the prepatellar fossa in a longitudinal direction with the probe marker caudal (see Figure 1). Identify the patella sonographically, then slowly

slide the probe cephalad until the patella, femur, quadriceps femoris tendon, and fat pad are visualized (see Figure 2). The effusion will appear as an anechoic fluid collection below the fat pad. A small skin wheal of local anesthetic (1–2% lidocaine) injected through a tuberculin syringe should be placed just lateral to the ultrasound transducer (the projected entry point for joint arthrocentesis). We recommend an ultrasound examination of the

nonaffected suprapatellar space for comparison.

Ultrasound-Guided Knee Arthrocentesis

Materials:

- 1) Sterile ultrasound sheath and gel
- 2) 18g 1.5 needle attached to a 5–10 mL syringe
- 3) Chlorhexidine
- 4) Sterile drape
- 5) Sterile gloves

6) 30 g tuberculin syringe filled with 1–2% lidocaine or ethyl chloride spray

**Pictures are for educational purposes, and sterile precautions (sterile probe cover, gloves, drapes, etc.) should be used for all joint aspirations.*

Joint aspiration:

For ultrasound-guided arthrocentesis, we recommend a lateral to medial in-plane technique. With the linear probe in the prepatellar fossa, rotate the probe marker (clockwise) to the patient's right to obtain a transverse view of the prepatellar space (see Figure 3). A large area around the suprapatellar space should be cleaned and draped in a sterile manner. The ultrasound transducer should be placed in a sterile sheath and then on the sterile field. The ultrasound system should be positioned opposite to the provider so the screen is in the direct line of sight. Using a 10 mL syringe attached to a standard 18g needle, enter the skin in plane and just lateral to the probe at a shallow angle (see Figure 4). The needle will traverse between the iliotibial band (superiorly) and vastus lateralis (inferiorly) without risk for vascular puncture. Clear needle visualization

can be achieved by slowly advancing just under the transducer. Gentle aspiration of synovial fluid with needle tip being visualized within the fluid collection will confirm violation of the joint space.

Summary

Point-of-care ultrasound can be a useful adjunct in the evaluation of the patient with a swollen, painful knee. Ultrasound can identify a suspected knee effusion as well as assist with arthrocentesis. A simplified in-plane technique can easily be incorporated into the evaluation of the patient with a suspected septic knee. +

References

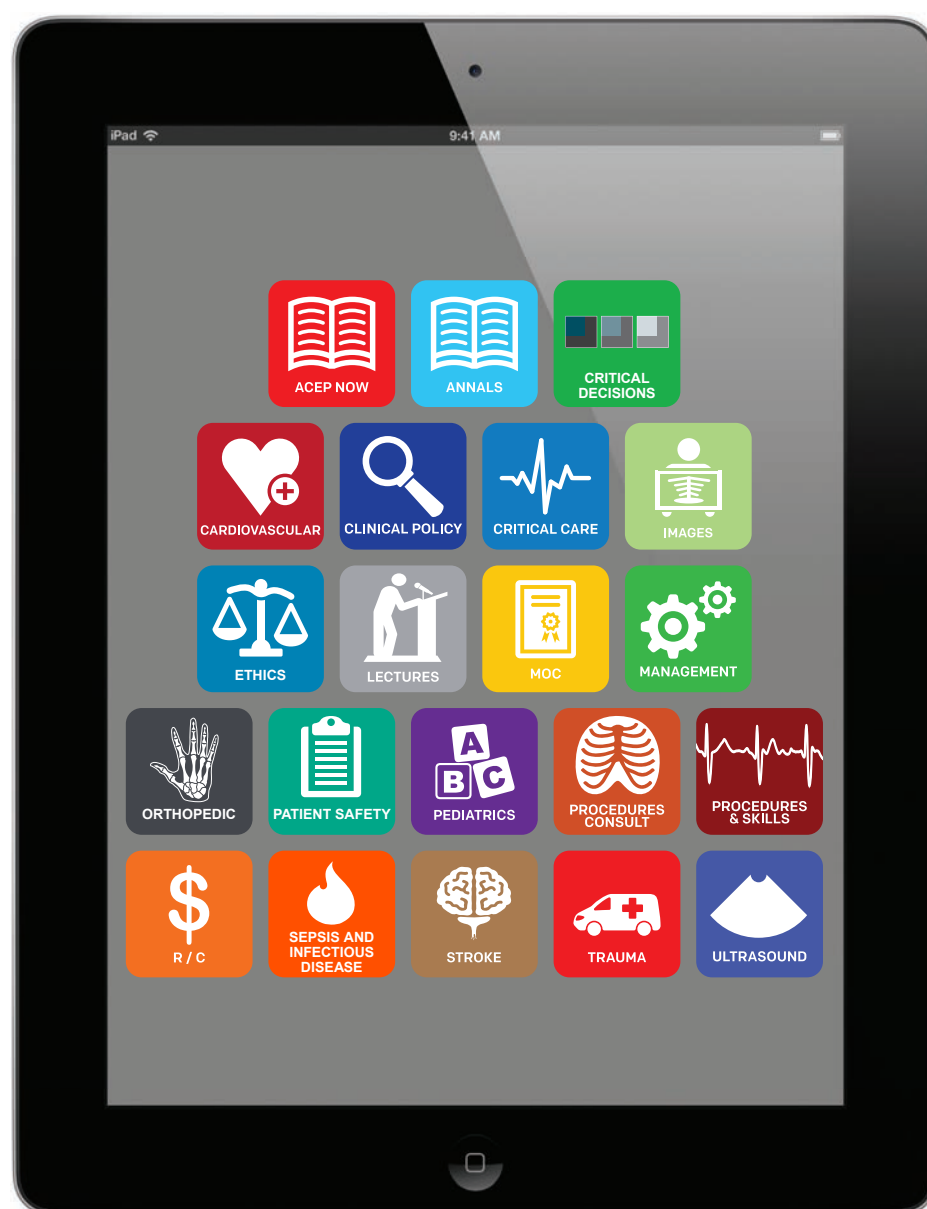
1. Berkoff DJ, Miller LE, Block JE. Clinical utility of ultrasound guidance for intra-articular knee injections: a review. *Clin Interv Aging*. 2012;7:89-95.
2. Adhikari S, Blaivas M. Utility of bedside sonography to distinguish soft tissue abnormalities from joint effusions in the emergency department. *J Ultrasound Med*. 2010;29:519-526.
3. Sibbitt WL Jr, Kettwich LG, Band PA, et al. Does ultrasound guidance improve the outcomes of arthrocentesis and corticosteroid injection of the knee? *Scand J Rheumatol*. 2012;41:66-72.
4. Wiler JL, Costantino TG, Filippone L, et al. Comparison of ultrasound-guided and standard landmark techniques for knee arthrocentesis. *J Emerg Med*. 2010;39:76-82.



Figure 3. Rotate the probe marker to the patient's right in order to visualize a transverse view of the prepatellar space with the effusion.



Figure 4. Enter the skin lateral to the probe using an 18g needle attached to a syringe for an in-plane arthrocentesis while visualizing the needle tip.



Emergency Medicine Education Whenever You Want It

Over 700 hours of online education

ACEP eCME brings you the emergency medicine CME you need on any device that has an Internet connection. Choose from 21 categories of courses covering the most important clinical topics and practice trends, over 700 hours of education — some are free, and some have a fee, and most have *AMA PRA Category 1 Credit™*.

* Group rates available.

800-798-1822 • www.acep.org/ACEPeCME

ACEP
eCME
Emergency medicine education whenever you want it

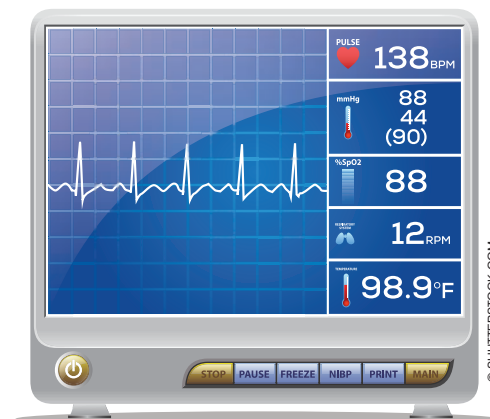
American College of
Emergency Physicians®
ADVANCING EMERGENCY CARE



DR. LEVITAN is an adjunct professor of emergency medicine at Dartmouth College's Geisel School of Medicine in Hanover, N.H., and a visiting professor of emergency medicine at the University of Maryland in Baltimore. He works clinically at critical care access hospitals in rural New Hampshire and teaches cadaveric and fiber-optic airway courses.

Resuscitation Sequence Intubation

Timing intubation in critically ill patients



CME Now

A new continuing medical education feature of ACEP Now

LOG ON TO
<http://www.acep.org/ACEPeCME/>
TO COMPLETE THE
ACTIVITY AND EARN
FREE AMA PRA
CATEGORY 1 CREDIT.

by RICHARD M. LEVITAN, MD, FACEP

At numerous recent conferences, a panoply of creative and insightful clinicians have been redefining cutting-edge emergency airway management. Emergency medicine, critical care, and social media giant Scott Weingart, MD, FCCM, has long warned us of the dangers of intubation before resuscitation. The incredible Social Media and Critical Care (SMACC) conference triumvirate of Roger Harris, MD, Chris Nickson, MBChB, and Oliver Flower, MBBS, BMedSci, have also emphasized intubation is but one part of resuscitation in the critically ill. Innovative educator Reuben Strayer, MD, has been promoting alternatives to rapid sequence intubation (RSI), specifically the use of ketamine

assisted intubation in patients who have no margin for safe apnea.

At SMACC, held in Chicago June 23–26, Dr. Weingart talked about the fact that RSI does not need to be first line in the critically ill patient and often shouldn't be performed. Correcting hypoxia and performing resuscitation should precede intubation. He coined the term “DSI” for delayed sequence intubation, using ketamine to allow for critical interventions prior to intubation (eg, noninvasive ventilation, nasogastric decompression, etc.).¹ In his words, “avoid using the laryngoscope as murder weapon.” Dr. Harris and Dr. Nickson stated repetitively at my recent Yellowstone Airway and Critical Care Course, “resuscitate, then intubate” the critically ill.

This got me thinking of our term “RSI,” which in emergency medicine refers to “rapid sequence intubation.” Ron Walls, MD, FACEP, and others adapted the term from “rapid sequence induction,” which was well established by anesthesia long before emergency medicine existed and referred to the sequence of giving an induction agent and then immediately giving a muscle relaxant. Kudos to Dr. Walls for getting emergency medicine to widely adopt muscle relaxants. Conventional intubation in the operating room environment historically involved administering an induction agent followed by verification of the ability to mask ventilate before the administration a muscle relaxant. Curiously, this sequence was not adopted in other areas of the world. Within the United Kingdom, there has long been a practice of giving both drugs at the same time and a belief that proving ventilation before a relaxant is not safety enhancing.² Numerous recent articles and editorials have argued, in fact, that trying to prove mask ventilation first is pointless. Muscle relaxants have been shown to enhance the ability to mask ventilate, and they also clearly optimize intubating conditions, but perhaps most significantly nowadays, they allow placement of a supraglottic airway (eg, laryngeal mask airway, King LT, etc.) without risk of gagging and vomiting.³

Slow Down

Returning to our use of the term “rapid,” I have recently realized how much rushing and emphasizing speed has been deleterious to our crisis performance in airway management. The most common mistake in laryngoscopy, direct and video, is overrunning the epiglottis. Slow is smooth, and smooth is fast. I now advocate holding laryngoscopes (direct or video device) with the lightest possible two

fingers and thumb grip just to slow down device insertion, gently distract tongue, and find the epiglottis on insertion by rolling midline down the tongue, dabbing mucosa with the Yankauer, then doing tongue control as needed. “Rapid” is bad neurologically in both laryngoscopy or tube delivery, and we should be especially careful to avoid “rapid” following RSI drug administration and inserting a laryngoscope too early. I now close the communication loop with nurses explicitly when giving RSI meds. I have the nurse give the induction agent and muscle relaxant and then have the same person call out “60 seconds” to avoid my starting laryngoscopy too rapidly after administering the drugs, which could cause the patient to gag and vomit.

Watch for Shock

Optimizing oxygenation prior to intubation is, in hindsight, a no-brainer. It's rare that plastic needs to go in the trachea now; usually, it's oxygen that needs to get into the lungs and bloodstream. The other group of patients who require what I now realize is “resuscitation sequenced intubation” are those in shock. One way to recognize these cases is through the routine assessment of the Shock Index. Shock

“Rapid?” The most common mistake in laryngoscopy, direct and video, is overrunning the epiglottis. Slow is smooth, and smooth is fast.

Index refers to the ratio of the heart rate over the systolic blood pressure. Normally, this ratio is between 0.5 and 0.8. When heart rate and systolic blood pressure are equal, the ratio is 1.0. Above a Shock Index of 1.0, the combination of using positive pressure ventilation, taking away adrenergic tone, and creating muscle relaxation can cause precipitous hypotension and cardiac arrest. For this reason, some have advocated push-dose vasopressors for all RSI cases. Another approach is to time the intubation after the resuscitation has

CONTINUED on page 21



REGISTRATION NOW OPEN

March 8-10, 2016 | Disney's Yacht Club Resort | Lake Buena Vista, FL



BE READY — Turn challenging pediatric emergencies into rewarding ones.

Hands-on pre-conference ultrasound and procedures labs

Current techniques and innovative findings in pediatric EM

The latest in pediatric EM products and services throughout the exhibit hall

www.acep.org/pemassembly | 800-798-1822, Ext 5

REGISTER WITH PROMO CODE **PEM16P2** TO SAVE \$100



Book your hotel today at acep.org/pem/hotel

150803

MISSION: EFFICIENCY | CONTINUED FROM PAGE 13

5 TIPS FOR A MORE "EFFICIENT" LIFE

1 Don't let them tell you you can't. You can do it all! From someone who's been there and knows it can be done, when your awesome boss/CEO leaves the office at 4:30, so should you. Go home, be with your kids, coach soccer, watch your daughter ice skate. The work will still be there when they're asleep.

2 Harness the power of the fruit. Did you ever have a colleague tell you to shut off when you leave? Of course you did! However, there is plenty of time to answer emails after soccer, when the kids go to bed, or in line at the bank. Use your fruit (whatever fruited device you see fit— Apple, BlackBerry, Blueberry, etc.) to go through those emails that do not require much thought. Triaging, which I learned in my emergency medicine residency, is likely the most important skill I took away from those fun years.

3 Collaborate—create the win-win! You can get more done when you collaborate, whether working with medical students, other service chiefs, or the critical care committee. Spread the love and engage others in your work. You will all be more productive, and it really does benefit all parties.

4 You gotta love what you're doing. You are not going to be efficient at anything if you do not really enjoy what you are working on. I remember the time I was doing my thesis work in medical education, looking at consultations out of the emergency department. We went into great detail to train our resident physicians in ways of communication (the five Cs: contact, communicate, core question, collaborate, and close the loop). We randomized them to two groups, rated them, and found the ones who got trained consulted much better. Many a night, I was up listening to recorded conversations and crunching data. When it's 11 p.m., you're exhausted, and the NBA playoffs are on, you better love the stuff or else it will sit on the back burner for quite a while.

5 Be überproductive at work. I'd rather have the time at home, so I focus on getting all my work done. Decide what's important to you. If you would rather have time at home with family, then spend your time at work working. Churn through the emails, reading the papers at lunch, signing what you need to sign, and get on home. Don't be a social leper at work, but again, (see Tip 1) you can do it all! ➔

MAKE THE EFFICIENCY PRINCIPLE WORK FOR YOU

The efficiency principle states, in my words at least, that the more you are given and the more your plate fills up, the more you can bang out. Surgery volume goes up, yet mortality and morbidity go down—why? You become better at the process, and then it becomes part of your culture. This is Toyota (Lean Six Sigma) at its core. When are you at your best? Is it three weeks before a deadline? Well maybe for some, but for 99 percent of us, we are at our best when the deadline is tomorrow, and still working on your kid's diorama for art class! Setting dead-


Innovation favors not only the creative but also the starved mind. When there is no choice to fail, the work gets done. Know in your mind that it will all get done as it always has in the past and then plow through.

lines, being organized, and knowing what is important that day or that night are key.

We get better at things the more we do them and when we have no choice. Innovation favors not only the creative but also the starved mind. When there is no choice to fail, the work gets done. Know in your mind that it will all get done as it always has in the past and then

plow through. So, as the ancient Chinese proverb goes, the journey of a thousand miles starts with a single step. Go take that step. ➔

DR. KESSLER is deputy chief of staff at Durham VA Medical Center and associate professor of emergency medicine and internal medicine at Duke University School of Medicine in Durham, North Carolina.



“CEP America is all about you and the patient. I really feel I have a voice in making decisions about where the partnership is going, and how that's going to affect my practice.”

Bryan Chow, MD
Emergency Medicine Partner
Washington State

Learn more about Bryan and find out how careers at CEP America are different.
go.cep.com/bryanmd

CEP America

Your Life. Your Career. Your Partnership.

Invest in Your Success

ACEP membership connects you to over 32,000 emergency physicians worldwide.

Reach Out
Join ACEP Today
acep.org/benefits

James Luz, MD
Sacramento, CA

 **American College of
Emergency Physicians®**
ADVANCING EMERGENCY CARE 

140802

CLASSIFIEDS

Chair, Department of Emergency Medicine

The University of Texas Medical School at Houston seeks a dynamic physician leader to serve as Chair of the Department of Emergency Medicine. The medical school is a part of The University of Texas Health Science Center at Houston (UTHealth), a comprehensive academic health science center located in the Texas Medical Center (<https://med.uth.edu/wp-content/blogs.dir/1/files/2012/05/utms-annualreport-2011.pdf>). UTHealth is composed of six schools (Dentistry, School of Biomedical Informatics, Graduate School of Biomedical Sciences, Medicine, Nursing and Public Health). Over 4,000 students are enrolled in its various programs. The organization has over one billion dollars in assets. UTHealth is one component of the Texas Medical Center which includes two medical schools, two level one Trauma Centers, the Texas Medical Center Library, a regional affiliate of the NLM, and multiple hospital and educational programs. Houston is the fourth largest city in the US with one of the most diverse populations and growing and vibrant economy.

The UTHealth residency program in EM is one of the larger programs in the US and recently celebrated its twentieth year of EM residency training. The Department of Emergency Medicine has 50 faculty and 24 Advanced Practice Providers. Its educational program includes 54 residents (PGY1-3), 7 clinical fellows, and one third-year and three fourth-year medical student electives. The department has \$600K in annual research expenditures, \$8M in clinical revenue, and an annual operating budget of \$27.8M. Clinical services are provided at two primary teaching hospitals, and two community hospitals. The Chair also oversees a growing hospitalist program with 24 faculty and staff physicians. The department offers a vibrant and diverse working environment characterized by an atmosphere of supportive, interdisciplinary collaboration. Additional information about the department may be found at: <https://med.uth.edu/emergencymedicine/>

The candidate should be of national/international stature, recognized for his/her accomplishments in academic Emergency Medicine and should possess outstanding leadership qualities. He/she must have demonstrated success in promoting excellent teaching, faculty development and scholarship, as well as implementing outstanding research and clinical programs. The candidate should also have the skills necessary to lead a diverse organization and to work collaboratively with colleagues and administrative teams.

The successful candidate must be board certified in Emergency Medicine and meet the requirements for a senior faculty appointment at the University of Texas Medical School. He/she must hold or be able to obtain an unrestricted medical license in the State of Texas. Minorities and women are strongly urged to apply.

Review of applications will continue until the position is filled. Interested candidates should confidentially submit electronic application materials using the following link:
<http://jobs.uth.tmc.edu/applicants/Central?quickFind=102730>

 **UTHealth™**
The University of Texas
Health Science Center at Houston

UTHealth is an EEO/AA employer. UTHealth does not discriminate on the basis of race, color, religion, gender, sexual orientation, national origin, genetics, disability, age, or any other basis prohibited by law. EOE/M/F/Disabled/Vet.

TO PLACE AN AD IN ACEP NOW'S CLASSIFIED ADVERTISING SECTION PLEASE CONTACT:

Kevin Dunn: kdunn@cunnasso.com
Cynthia Kucera: ckucera@cunnasso.com
Phone: 201-767-4170

Medical College of Wisconsin**Academic, VA, and Community Opportunities for MDs, DOs, and APPs**

Our Level I Adult ED at Froedtert Hospital is completing an expansion in January 2016. We are recruiting for two faculty to complete our Froedtert coverage in the Clinician/Educator Path. Our Department is also initiating weekday coverage at the VA ED in Milwaukee. We are recruiting for two faculty.

Additionally, we are actively recruiting for six faculty for our new, freestanding community ED, which opens in July, 2016.

All faculty members could have clinical responsibilities at one or more sites.

We are also seeking PAs and NPs for our new, Froedtert ED 14-bed Clinical Decision Unit.

The Department of Emergency Medicine at MCW is nationally and internationally recognized in Resuscitation Research, Injury Prevention and Control, EMS, Toxicology, Global Health, Ultrasound, Medical Education, and Process Improvement.

Interested applicants should submit a curriculum vitae and letter of interest to Dr. Stephen Hargarten, Department Chairman, at hargart@mcw.edu.

Grand View Hospital, Sellersville, PA

Grand View Hospital, a 190 bed community hospital in Sellersville PA has Full Time and Part Time opportunities for a Residency trained BC/BE Emergency Medicine Physician.

Our Emergency Department sees over 35,000 patients per year with an ED Provider Group of 12 Physicians and 6 Physician Assistants. Made up of a traditional ED with 24 beds and a lower level acute Fast Track side with 3 beds, our Hospital and ED has received awards from Healthgrades for Clinical Excellence in 2013 and Outstanding Patient experience in 2009 to 2012.

We are committed to providing the best care possible for all our patients.

These positions offer a compressed work schedule, cme expenses, excellent compensation package, and a solid work to life balance for you.

If you are ready for the challenge and can provide outstanding patient care, then we look forward to speaking with you.

Please call or email our Physician Recruiter, Bill Mawhinney at bmawhinney@gvh.org or 215-453-4159 for more information.



A GREAT EM CAREER HITS ALL THE HIGH NOTES

EMA – The Power of Blue

Whether it's a great song or a great EM career, when everything is perfectly aligned, it's music to your ears. Join a passionate group of physicians and partner with a practice powered by amazing support, technology, benefits and compensation, equitable scheduling, and coaching/mentoring for career development and growth. Empowering you to have a voice in the practice while **making healthcare work better.**

Explore emergency medicine and urgent care opportunities in NJ, NY, PA, RI and NC.

Enter our raffle to
WIN your choice of:

GUITAR

BOSE
BLUETOOTH
SPEAKERACEP16
CONFERENCE
REGISTRATION

Come Jam with our EMA Physicians at **Booth #1227**

ACEP15 Scientific Assembly in Boston, Oct. 26 – 28

BEST PLACES TO WORKTM 2014



Emergency
Medical
Associates

The Sign of Excellence in Emergency Medicine®

www.ema.net | careers@ema.net | 3 Century Drive, Parsippany, NJ 07054 | 866.630.8125



AIRWAY | CONTINUED FROM PAGE 18

been undertaken (ie, get the fluids in and start the vasopressor drip [norepinephrine usually], correcting hypotension before intubation is attempted).

The Shock Index has been studied as it relates to intubation in the emergency department and found to be the most useful predictor of peri-intubation cardiac arrest. Heffner and colleagues noted the incidence of peri-intubation cardiac arrest to be more than 4 percent.⁴ It was associated with higher in-house death (odds ratio of 14.8) and was most commonly associated with pre-intuba-

tion hypotension (12 percent of patients who were initially hypotensive arrested versus only 3 percent of other patients).

In some very ill patients, it may be necessary to avoid intubation if at all possible. I recently had a patient in complete heart block with hypotension from an anterior-inferior ST-segment elevation myocardial infarction. With pacing and vasopressors, she arrived to the cath lab in time, and intubation was completely avoided. In hindsight, I think she would not have tolerated the hemodynamic consequences of intubation.

As the bar of practice in emergency airways continues to be raised, as we are more and more becoming critical care doctors (by default, the way our EDs are running), it's important to expand our perspective. Placing plastic in the trachea is but one part of our critical care responsibilities. Along with optimizing oxygenation prior to intubation (nasal oxygenation, DSI, ketamine assisted intubation, etc.), assessing Shock Index is helpful in identifying patients who need resuscitation sequence intubation, not rapid intubation. ☺

References

1. Weingart SD, Trueger NS, Wong N, et al. Delayed sequence intubation: a prospective observational study. *Ann Emerg Med*. 2015;65:349-355.
2. Calder I, Yentis SM. Could 'safe practice' be compromising safe practice? Should anaesthetists have to demonstrate that face mask ventilation is possible before giving a neuromuscular blocker? *Anaesthesia*. 2008;63:113-115.
3. Warters RD, Szabo TA, Spinale FG, et al. The effect of neuromuscular blockade on mask ventilation. *Anaesthesia*. 2011;66:163-167.
4. Heffner AC, Swords DS, Neale MN, et al. Incidence and factors associated with cardiac arrest complicating emergency airway management. *Resuscitation*. 2013;84:1500-1504.

PICTURE YOURSELF AT QUESTCARE

**PHYSICIAN-OWNED AND OPERATED
EMERGENCY MEDICINE GROUP**



**JOIN US AS WE
GROW!**

EXCITING EMERGENCY
MEDICINE OPPORTUNITIES
AVAILABLE IN
TEXAS AND OKLAHOMA



**AS A QUESTCARE
PARTNER:**

- You become an owner of your EM group
- Group decisions are made by you and doctors like you
- You will have scheduling flexibility to enjoy what moves YOU

Are you interested in an opportunity to join a group of medical professionals who are serious about their work AND play? As an integral part of Questcare, you will find a platform and philosophy that are conducive to creating the work/play balance that you have the power to choose.

Get in touch with us TODAY.
jobs@questcare.com or (972) 763-5293

www.questcarecareers.com



facebook.com/questcare



twitter:questcare



SEEKING A BE/BC EMERGENCY MEDICINE PHYSICIAN

to work full time in our new 16 bed state-of-the-art Emergency Department at Soldiers + Sailors Memorial Hospital with annual volumes estimating 18,000. Our group of physicians and allied health staff work in an environment highly motivated by a "team approach" with excellent rapport with Medical Staff. We offer 12-hour shifts in the ED and have very skilled support and nursing staff. Our system is dedicated to keeping up with technology, keeping our community healthy as well as an excellent work environment. If you are an outdoors person, our community offers some of the best recreational activities in the Northeast. Our community has a great variety of cultural activities, such as theater, music, dance and art, as well as excellent schools for our children.

- 146 shifts per year - 7A-7P or 7P-7A
- Salary competitive with the most recent MGMA salary guidelines
- 16 hour PA-C/CRNP coverage

For more information on this opportunity, contact:

Tracy Manning
570-723-0509
Fax: 570-724-2126
Email: tmanning@laurelhs.org



Susquehanna Health
Soldiers + Sailors Memorial Hospital

SusquehannaHealth.org

Southwest Massachusetts, The Berkshires

Americas Best Small Town-Great Barrington
(Smithsonian Travel Magazine)

Fairview Hospital

Unparalleled Culture, Mountain Town Setting
with Skiing, Hiking, Biking, Climbing

Second Home community for Manhattan and
Boston Area, 2-3 hour drive

Work 1548 Hours/Year (29.7 hours weekly)
Earn \$297,990/Year (\$192.50/hour)
Signing Bonus and Moving Reimbursement
12-13,000 yearly volume
24 hour physician coverage and 10 hour
midlevel coverage daily

Critical Access Hospital,
10-13% Admission/Transfer rate
24/7 Hospitalist Program, Surgical, OB-GYN,
Cardiology and Pediatrics
24/7 Ultrasound, CT, X-ray and Lab
EMR-Scribes

Flagship Hospital for Health System 21 miles
away with most Specialties and Subspecialties
available at all times.
Local Paramedic Service

Very Stable ED staff
Majority of physicians working at this
location >20 years some >30 years
Very Stable Financially Solvent Hospital,
Top Rural Hospital Ranking

Benefits package from Hospital includes
403B with matching, 457, Med-FLEX,
CME and all licensure reimbursed,
Health and Dental Insurance, fully
funded Short and Long Term Disability
and Life Insurance.
Additional value of these benefits >\$30K.

If you like small towns, the outdoors or culture
give me a call.

Contact: Alec Belman MD, 207-553-0160,
abelman@bhs1.org



Making Health Care Work Better.™

OPPORTUNITIES NATIONWIDE

ARKANSAS OPPORTUNITIES

Sparks Medical Center (Van Buren)
19K visits/yr.

CENTRAL FLORIDA OPPORTUNITIES

Brooksville Regional Hospital
(Brooksville) 26K visits/yr.

Bayonet Point (Hudson) 36K visits/yr.

Citrus Memorial (Inverness) 40K visits/yr.

Leesburg Regional Medical Center
(Leesburg) 45K visits/yr.

Munroe Regional Medical Center
(Ocala) 65K visits/yr.

NEW! Hunter's Creek ER (Orlando)
Estimated 18K visits/yr.

Osceola Regional Medical Center
(Orlando) Associate Medical Director and Staff. 80K visits/yr.

Poinciana Medical Center (Orlando)
35K visits/yr.

Charlotte Regional Medical Center
(Punta Gorda) 20k visits/yr.

Central Florida Regional Hospital
(Sanford) 50K visits/yr.

Doctor's Hospital of Sarasota (Sarasota)
23K visits/yr.

Sebastian River Medical Center
(Sebastian) 23K visits/yr.

Bayfront Health Spring Hill (Spring Hill)
35K visits/yr.

Oak Hill Hospital (Springhill) 35K visits/yr.

Northside Hospital (St. Petersburg)
31K visits/yr.

Palms of Pasadena (St. Petersburg)
15K visits/yr.

St. Petersburg General Hospital
(St. Petersburg) 35K visits/yr.

Medical Center of Trinity (Tampa Bay)
Medical Director and Staff. 50K visits/yr.

NEW! Citrus Park ER (Tampa Bay)
9K visits/yr.

Brandon Regional Hospital (Tampa Bay)
Associate Medical Director and Staff.
106K visits/yr.

NEW! Tampa Community Hospital
(Tampa Bay) 18K visits/yr.

The Villages Regional Hospital
(The Villages) 38K visits/yr.

Florida Hospital, 3-hospital system. (Lake Placid, Sebring, Wauchula) 11K-25K visits/yr.

- Full time, part time and per diem.
- A-rated professional liability insurance with tail coverage
- Relocation assistance
- Credentialing and enrollment support
- Opportunities for professional development and career advancement

NORTH FLORIDA OPPORTUNITIES

NEW! Memorial Emergency Care - Atlantic (Jacksonville) Estimated 8K visits/yr.

NEW! Orange Park FSED - Westside.
Brand new freestanding ED, affiliated with Orange Park Medical Center. (Jacksonville)
Estimated 16k visits/yr.

Lake City Medical Center (Lake City)
25K visits/yr.

Gulf Coast Medical Center
(Panama City) Medical Director and Staff.
60K visits/yr.

SOUTH FLORIDA OPPORTUNITIES

Broward Health, 4-hospital system.
(Ft. Lauderdale) 34K-120K visits/yr.

Northwest Medical Center
(Ft. Lauderdale) 47K visits/yr.

Lehigh Regional Medical Center
(Lehigh Acres) 44K visits/yr.

Fishermen's Hospital (Marathon)
9K visits/yr.

Physicians Regional Medical Center Collier and Pine Ridge (Naples)
24K visits/yr.

Raulerson Hospital (Okeechobee)
23K visits/yr.

Fawcett Memorial Hospital
(Port Charlotte) 25K visits/yr.

St Lucie Medical Center (Port St. Lucie)
Free-Standing ED. 10K visits/yr.

Palms West Medical Center
(West Palm Beach) 24K visits/yr.

West Palm Hospital (West Palm Beach)
30K visits/yr.

GEORGIA OPPORTUNITIES

Murray Medical Center (Chatsworth)
19k visits/yr.

Fairview Park (Dublin) 36K visits/yr.

Coliseum Medical Center (Macon)
36K visits/yr.

South Georgia Medical Center (Valdosta) Medical Director and Staff.
65K visits/yr.

Smith Northview Urgent Care Center (Valdosta) 10K visits/yr.

Mayo Clinic at Waycross (Waycross)
50K visits/yr.

KANSAS OPPORTUNITIES

Menorah Medical Center (Overland Park) Medical Director and Staff.
14K visits/yr.

Galichia Heart Hospital (Wichita)
22K visits/yr.

EmCare® leads the way in Making Health Care Work Better™ especially for physicians. We provide the resources and support you need so you can focus on what's truly important - patient care.

For over 40 years emergency medicine has been our company's core competency. We currently service over 750 client contracts at more than 500 hospitals nationwide, ranging from some of the highest volume emergency departments to the smallest community facilities.

Wesley Medical Center (Wichita)
65K visits/yr.

KENTUCKY OPPORTUNITIES

Greenview Regional (Bowling Green)
32K visits/yr.

Murray-Calloway County Hospital (Murray) 18K visits/yr.

LOUISIANA OPPORTUNITIES

CHRISTUS St. Patrick Hospital (Lake Charles) 25K visits/yr.

Christus Highland Medical Center (Shreveport) 24k visits/yr.

MISSOURI OPPORTUNITIES

Belton Hospital (Belton) 27K visits/yr.

Golden Valley Memorial Hospital (Clinton) 13K visits/yr.

Research Medical Center (Kansas City)
55K visits/yr.

Overland Park FSED (Shawnee) Medical Director and Staff. Estimated 12k visits/yr.

NEW HAMPSHIRE OPPORTUNITIES

Parkland Regional Hospital (Portsmouth) 25K visits/yr.

PENNSYLVANIA OPPORTUNITIES

Lancaster Regional Medical Center (Lancaster) 22K visits/yr.

SOUTH CAROLINA OPPORTUNITIES

McLeod Health, 3 hospital system (Dillon, Loris, Seacoast) 23-30K visits/yr.

TEXAS OPPORTUNITIES

NEW INCREASED RATE! CHRISTUS Santa Rosa Hospital - Westover Hills (San Antonio) Medical Director and Staff.
65K visits/yr.

CHRISTUS Spohn Hospital Alice (Alice)
28K visits/yr.

NEW INCREASED RATE! CHRISTUS Hospital - St. Elizabeth (Beaumont)
50K visits/yr.

Conroe Regional Medical Center (Conroe) 50K visits/yr.

NEW INCREASED RATE! Christus Spohn Hospital - Shoreline (Corpus Christi) 36K visits/yr.

East Houston Regional Medical Center (Houston) Medical Director. 51K visits/yr.

West Houston Regional (Houston)
46K visits/yr.

NEW INCREASED RATE! CHRISTUS Jasper Memorial Hospital (Jasper)
23K visits/yr.

CHRISTUS Spohn Hospital - Kleberg (Kingsville) 20K visits/yr.

Pearland Medical Center (Pearland - Houston suburb) 17K visits/yr.

NEW INCREASED RATE! CHRISTUS Hospital - St. Mary (Port Arthur) 27K visits/yr.

CHRISTUS Alon/Creekside FSED (San Antonio) Estimated 9K visits/yr. each.

CHRISTUS Santa Rosa Hospital System (San Antonio) Regional Medical Director. 1-65K visits/yr.

CHRISTUS Santa Rosa - Alamo Heights (San Antonio) 1K visits/yr.

Metropolitan Hospital (San Antonio)
47k visits/yr.

Northeast Methodist (San Antonio)
Medical Director and Staff. 50k visits/yr.

Methodist Texan (San Antonio) 7k visits/yr.

TENNESSEE OPPORTUNITIES

Horizon Medical Center (Dickson) 40K visits/yr. Brand new freestanding ED TriStar Natchez in Dickson, TN, opening June 2015 estimated volume of 10K.

Erlanger Baroness, Level 1 Trauma Center. (Chattanooga) Academic Department Chair. 52K visits/yr.

ParkRidge Medical Center (Chattanooga) 40K visits/yr.

NEW! Sequatchie Valley Emergency (Dunlap) Estimated 6k visits/yr.

NEW! Physicians Regional Medical Center (Knoxville) 40K visits/yr.

Skyline Medical Center (Nashville)
Level 2 trauma Center. Medical Director.
60K visits/yr.

Southern Hills Medical Center (Nashville) 42K visits/yr.

Stonecrest Medical Center (Nashville)
41K visits/yr.

TriStar Ashland City (Nashville)
12K visits/yr.

University Medical Center (Nashville)
30K visits/yr.

Erlanger Bledsoe Hospital (Pikeville)
4K visits/yr.

VIRGINIA OPPORTUNITIES

Henrico Doctors' Hospital 5 campuses (Richmond) 14-34K visits/yr.

FT/PT/PRN. HTB VISA CANDIDATES WELCOME TO APPLY!

SEARCH HUNDREDS OF OPPORTUNITIES NATIONWIDE AT WWW.EMCARE.COM

FOR DETAILS: SoutheastOpportunities@EmCare.com
727.507.2526 + 727.437.3533



Your knowledge matters more here.

Hospital Physician Partners (HPP) is led and managed by practicing clinicians who understand the world you live in every day.

Check out our Emergency Medicine physician opportunities throughout the country, offering a range of locations, ED volumes, lifestyle options, professional growth and rewarding compensation:

Albuquerque, NM – various locations
Bluefield, WV – \$205/hour
Bullhead City, AZ – \$40K sign-on bonus
Clarksdale, MS – only one hour from Memphis

Clarksville, AR – \$180/hour
Gadsden, AL – \$40K sign-on bonus
Paragould, AR – \$190/hour
Spokane, Toppenish & Yakima, WA – \$60K sign-on bonus

Also Hiring:
Medical Directors in Canton & Jackson, MS
 Lucrative Sign-On Bonuses



You matter more here.

www.hppartners.com
opportunities@hppartners.com

CLINICAL & ACADEMIC EMERGENCY PHYSICIANS

Greenville Health System (GHS) seeks **BC/BE emergency physicians** to become faculty in the newly established **Department of Emergency Medicine**. Successful candidates should be prepared to shape the future Emergency Medicine Residency Program and contribute to the academic output of the department.

GHS is the largest healthcare provider in South Carolina and serves as a tertiary referral center for the entire Upstate region. The flagship Greenville academic Department of Emergency Medicine is integral to the patient care services for the:

- **Level 1 Trauma Center**
- **Dedicated Pediatric Emergency Department within the Children's Hospital**
- **Five Community Hospital Emergency Departments**
- **Accredited Chest Pain Center**
- **STEMI and Comprehensive Stroke Center**
- **Emergency Department Observation Center**
- **Regional Ground and Air Emergency Medical Systems**

The campus hosts 15 residency and fellowship programs and one of the nation's newest allopathic medical schools - University of South Carolina School of Medicine Greenville.

Emergency Department Faculty enjoy a flexible work schedule, highly competitive salary, generous benefits, and additional incentives based on clinical, operational and academic productivity.

Greenville, South Carolina is a beautiful place to live and work. It is one of the fastest growing areas in the country, and is ideally situated near beautiful mountains, beaches and lakes. We enjoy a diverse and thriving economy, excellent quality of life, and wonderful cultural and educational opportunities.

Qualified candidates should submit a letter of interest and CV to:
Kendra Hall, Sr. Physician Recruiter, kbhall@ghs.org, ph: 800-772-6987.
 GHS does not offer sponsorship at this time. EOE



**GREENVILLE
HEALTH SYSTEM**

What has your career done for you lately?

As facility medical director, **Dr. Karen Kriza** relies on TeamHealth to manage the administrative duties associated with operating an efficient emergency room. Thanks to TeamHealth's support with scheduling, recruiting, insurance negotiations and risk management, Dr. Kriza has more time to focus on her patients and family and enjoy the luxuries of living by the water.

Text **CAREERS** to **411247** for latest news and info on our job opportunities!
Visit myEMcareer.com to find the job that's right for you.

Featured Opportunities:

Lewistown Hospital

Lewistown, PA
32,000 Volume
Assistant Medical Director

St. Joseph's Hospital Health Center

Syracuse, NY
72,000 Volume

St. Rita's Medical Center

Lima, OH
59,000 Volume

West Valley Hospital

Phoenix, AZ
50,000 Volume

Crockett Hospital

Lawrenceburg, TN
16,500 Volume

Rapides Regional Medical Center

Alexandria, LA
70,000 Volume

Memorial Hospital of Martinsville & Henry County

Martinsville, VA
43,000 Volume

Kittitas Valley Community Hospital

Ellensburg, WA
12,000 Volume

UK Healthcare Good Samaritan Hospital

Lexington, KY
26,000 Volume

Del Sol Medical Center-East

El Paso, TX
64,000 Volume

Jersey Shore Hospital

Jersey Shore, PA
12,000 Volume

Clinch Valley Medical Center

Richlands, VA
19,000 Volume

Don't Miss TeamHealth's ACEP Physician Reception

Tuesday, October 27 | 7 pm | Museum of Science, Boston

PLEASE VISIT OUR ACEP BOOTH #609 TO GET YOUR FREE TICKET FOR THIS EVENT!



TEAMHealth®

Your career. Your way.

855.615.0010
physicianjobs@teamhealth.com





UNIVERSITY OF FLORIDA College of Medicine - JACKSONVILLE

The University of Florida Department of Emergency Medicine is recruiting motivated & energetic emergency physicians to **join our new UF Health – Northside Emergency Department in Jacksonville, Florida.**

Live and play at the beach. Work and learn with academic colleagues on the cutting edge of simulation, ultrasound, advanced airway management, critical care and wellness. Be part of a growing and supportive academic faculty that will work to help you establish your professional goals.



UF Health – Northside will begin as a 28 bed full-service, free-standing emergency department with six observation beds. There will be comprehensive radiology and laboratory services, and consultation will be available from all UF Health specialty and sub-specialty services. Phase 2 of this project will include the addition of 99 inpatient beds to this facility. This is a rare opportunity to get in on the ground floor of an exciting project, and take care of patients in a beautiful, state-of-the-art emergency department.

Join the University of Florida Faculty and earn an **extremely competitive community-based salary** as a UF assistant or associate professor in a **private practice setting**. Enjoy the full range of University of Florida State benefits including **sovereign immunity occurrence-type medical malpractice, health, life and disability insurance, sick leave, and a generous retirement package.**

All physicians are **ABEM / ABOEM Board Certified / Board Eligible.**

E-mail your letter of interest and CV to Dr. Kelly Gray-Eurom
Kelly.grayeuro@jax.ufl.edu

EOE/AA Employer

Ohio - Geneva: EM Physician

4M Emergency seeks an excellent EM physician at UH Geneva Medical Center. Annual volume of 14k; 12 hour physician shifts with newly added midlevel coverage.

Located on the shores of Lake Erie in Ohio's wine country, Geneva is situated 55 miles from the PA state line & 45 minutes north of Cleveland. Beautiful settings, fishing, boating, swimming, & wonderful park facilities make Geneva the perfect place to begin or raise a family!

4M Emergency offers an extremely competitive compensation and benefits package including: signing bonus; incentive plan; fully-paid family health, dental and vision plan; 401k with 100% match up to 6% of earnings; malpractice with tail; paid life & long/short term disability; HSA contribution.

To learn more about joining our practice, please contact Erin Waggoner at (888) 758-3999 or via email at ewaggoner@4Mdocs.com.

Ohio - Parma: EM Physician

Full and part time positions available at UH Parma Medical Center.

This 39 bed ED has an annual volume of 41k, with 36 hours of physician coverage and 36 hours of independent midlevel coverage. UH Parma is a Stroke & Chest Pain Center and is pursuing Level III Trauma Center status.

Located 11 miles from downtown Cleveland, Parma was recently recognized by Businessweek Magazine as one of the best places in Ohio to raise a family!

4M Emergency offers an extremely competitive compensation and benefits package including: signing bonus; incentive plan; family health, dental, and vision plan; 401k with 100% match up to 6% of earnings; malpractice with tail; paid life & long/short term disability; HSA contribution.

To learn more about our practice, please contact Erin Waggoner at (888) 758-3999 or ewaggoner@4Mdocs.com.

Texas - Waco

Want high acuity in a fast-paced environment?

Look no further than this exciting partnership opportunity in Waco, TX.

Providence Health Center is a busy, 75,000 volume ED that offers scribes and NP/PA support to make your job easier.

Practice in a great mid-sized city featuring attractive real estate, great schools, and Big 12 college sports.

Work for Emergency Service Partners, LP, a physician-owned and operated partnership offering equity units in as little as one year.

You belong here!

For more details, contact gieselle@eddcs.com and mention job #292671-11.

Texas

Bryan-College Station Area

Work as few as 6 days a month and be a partner in your practice! 24-hour shifts are easy at this low-volume facility open to family medicine or EM physicians.

\$10,000 sign-on incentive for full-time hires!

Easily accessible location midway between Dallas and Houston. Madisonville is a Level III stroke facility with easy transfers to nearby Level II trauma center.

Emergency Service Partners, L.P. offers flexible scheduling plus paid malpractice and tail insurance.

Contact Jeff Franklin at jeff@eddcs.com and mention job #266647-11.

Moses Lake, Washington

Emergency Department Director

Wenatchee Emergency Physicians seeking BC/BP Emergency Physician for Leadership Position.

Fastest growing community in the sunshine part of the state. Great hunting, fishing & water sports with skiing one hour away.

Patient volume 17K. Single coverage with Midlevels 12 hours daily. ED being remodeled. Partnership track one year.

Competitive hourly rate plus Director stipend. Stable Democratic Group.

Wenatchee Emergency Physicians

Contact Michael Parnell MD at mparnell1@charter.net

Coastal San Diego emergency department seeking qualified, board-certified/eligible emergency medicine physician to join our independent, democratic group. Location is by the beach in Northern San Diego with year round outdoor life and outstanding schools.

Tri-City Medical Center Emergency Department is a dynamic, high-acuity department with an excellent specialty call-panel, PGY3&4 Emergency Medicine Residents, and advanced practice PA's. Practice is designed with quality of life in mind, including 8 hour shifts with overlap and extensive provider coverage.

Salary potential reaches top 3% nationally. "A"- Rated malpractice insurance with tail coverage provided.

Forward CV to Teresa Riesgo
email: triesgo@tcmg.net
Phone: 760-439-1963

**TO PLACE AN AD IN
ACEP NOW'S
CLASSIFIED ADVERTISING
SECTION PLEASE
CONTACT:**

Kevin Dunn: kdunn@cunnasso.com
Cynthia Kucera: ckucera@cunnasso.com
Phone: 201-767-4170

The best of both worlds – Academic and Community

Mercy Medical Center, an academically affiliated community hospital in downtown Baltimore is looking to add a Board Certified Emergency Physician.

Mercy is a major community teaching affiliate of the University of Maryland School of Medicine, with all medical students, and residents from multiple departments, rotating regularly. The Emergency Department has a long history of educational excellence, providing regular rotations for Emergency Medicine residents, medical students, and residents in other specialties.

The Department sees over 56,000 adult visits annually with an additional 7,500 pediatric patients seen primarily by pediatricians in an adjacent area. 24 to 36 hours of daily PA coverage augments 54 hours of attending physician coverage. A collegial medical staff provides extensive specialty coverage. The department houses a Sexual Assault Forensic Exam program that is the primary referral site for Baltimore City. We share close relationships with nearby Health Care for the Homeless and Baltimore City.

Mercy is ranked by US News and World Report the #2 hospital, and the #1 community hospital, in Maryland. Becker rates it as a Top 100 Hospital. Sponsored by the Sisters of Mercy, we are an independent, fiscally strong hospital, located six blocks north of Baltimore's Inner Harbor, equidistant between the University of Maryland and Johns Hopkins Hospital.

Salary and benefits are competitive.
Mercy is an Equal Employment Opportunity Employer.

Interested candidates should submit their curriculum vitae to Scott A. Spier, MD, Chief Medical Officer, Mercy Medical Center, sspier@mdmercy.com.

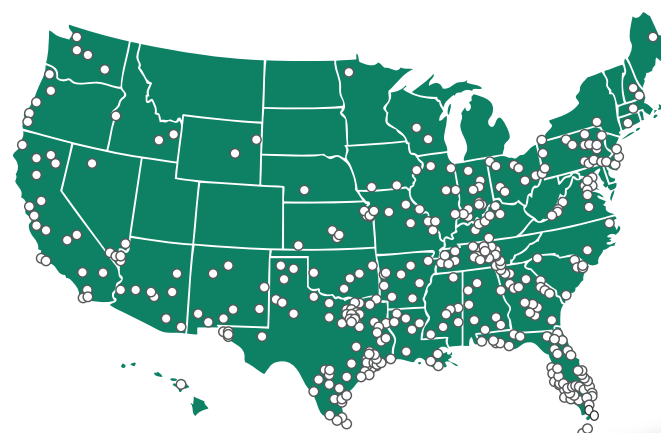


ALOK BEECUM, MD

Bayfront Brooksville and Spring Hill Hospitals
Odessa, FL

Quality people. Quality care. Quality of **LIFE**.

For nearly half a century EmCare has been patient-focused. As a physician-led company, we take pride in hiring the best in the medical profession. Offering the locations, positions & lifestyle you want nationwide:



○ EmCare locations

855.367.3650
Search jobs at
emcare.com/careers

EmCare
MAKING HEALTHCARE WORK BETTER™

IT PAYS TO WORK IN TEXARKANA

CHRISTUS St. Michael Health System

- 33-bed ED with 59,000 annual ED volume
- Beautiful setting with excellent backup
- Surprisingly challenging mix of trauma, critical care, pediatrics, & general medicine
- True partnership opportunity in as little as one year

**\$25,000
SIGN-ON
BONUS!**



Emergency
Service
Partners, LP

512-610-0349
gieselle@eddocs.com

TO PLACE AN AD IN ACEP NOW'S CLASSIFIED ADVERTISING SECTION PLEASE CONTACT:

Kevin Dunn: kdunn@cunnasso.com
Cynthia Kucera: ckucera@cunnasso.com
Phone: 201-767-4170

COMING SOON

Praxbind[®]
(idarucizumab)



Boehringer
Ingelheim

Praxbind[®] is a registered trademark of Boehringer Ingelheim International GmbH and used under license.
COPYRIGHT © 2015 BOEHRINGER INGELHEIM PHARMACEUTICALS, INC. ALL RIGHTS RESERVED.
PRINTED IN U.S.A. [4/15] PC-PB-0018-PROF